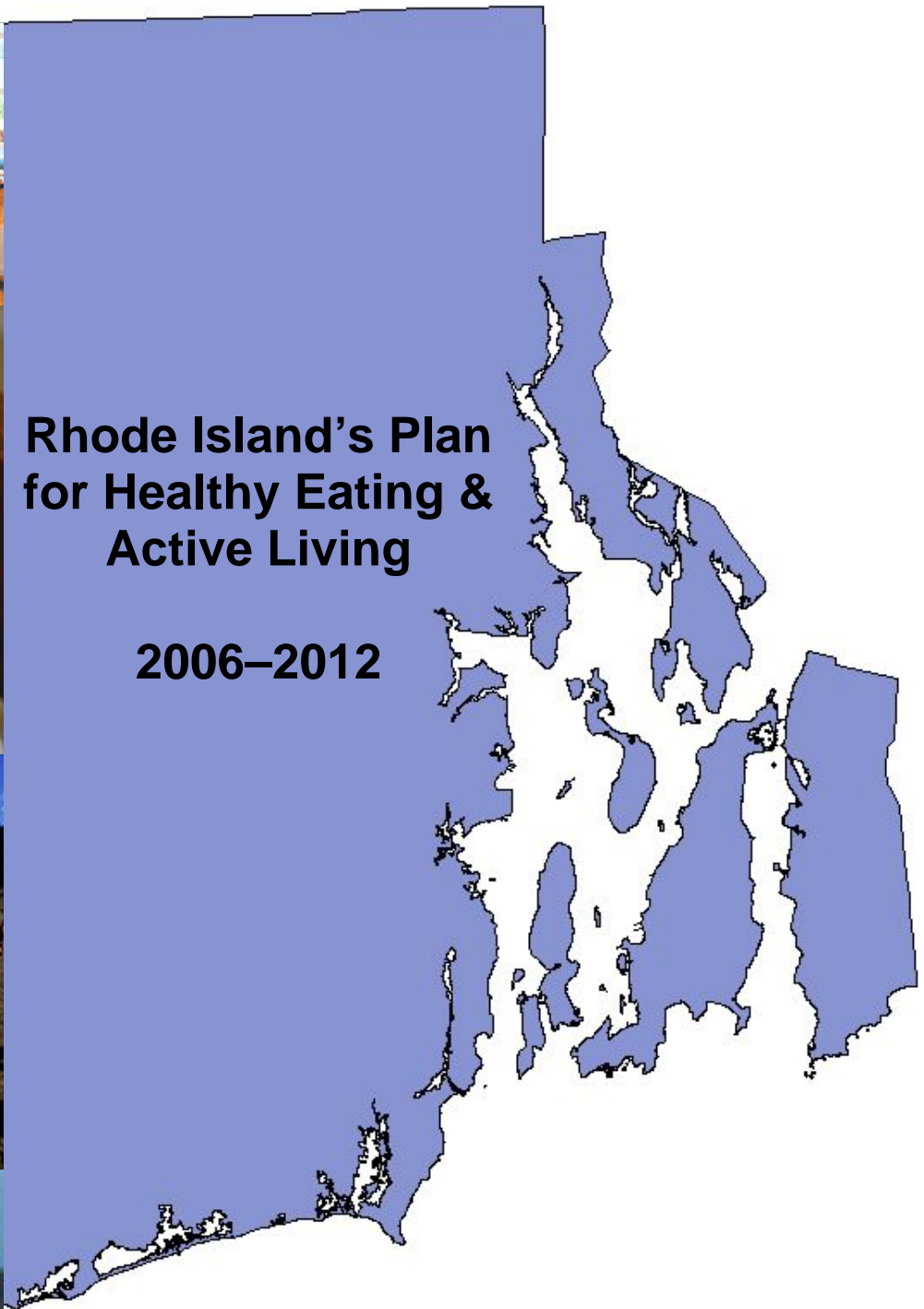




# **Rhode Island's Plan for Healthy Eating & Active Living**

**2006–2012**



## **Rhode Island Department of Health Initiative for a Healthy Weight July 2006**



Donald L. Carcieri, Governor  
David R. Gifford, MD, MPH, Director

State of Rhode Island  
Department of Health  
[www.health.ri.gov](http://www.health.ri.gov)

# **Rhode Island's Plan for Healthy Eating & Active Living 2006–2012**

**July 2006**

**Rhode Island Department of Health  
Division of Community Health and Equity  
Initiative for a Healthy Weight**

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State of Rhode Island and Providence Plantations

State House  
Providence, Rhode Island 02903-1196  
401-222-2080

Donald L. Carcieri  
Governor

July 25, 2006

Dear Fellow Rhode Islanders:

I am pleased to present to you the first comprehensive *Rhode Island Plan for Healthy Eating and Active Living*. This Plan provides guidelines for all of us to follow at the state, community, family, and individual level to help prevent and reduce obesity and related chronic diseases such as heart disease, type 2 diabetes, certain types of cancer, and arthritis, among others. It offers us an opportunity to develop policies and modify our environment to support all Rhode Islanders in leading healthier lives.

My Wellness Initiative, a public-private effort to promote healthy lifestyles for all Rhode Islanders, is guided by the goals of improving nutrition, increasing physical activity, and decreasing the prevalence of obesity in Rhode Island. I thank the staff at the Department of Health and more than one hundred individuals and organizations representing the diversity of Rhode Island that helped identify effective strategies to achieve these important goals for our state.

With the publication of this Plan, developed with funding support from the U.S. Centers for Disease Control and Prevention, the hard work of implementing new initiatives and expanding current, effective initiatives begins. As we commit ourselves to action, I hope that all of us will find this Plan to be a valuable road map for the many ways that each one of us can contribute to preventing and reducing obesity in Rhode Island.

Sincerely,

A handwritten signature in blue ink, reading "Donald L. Carcieri", is positioned above the printed name.

Donald L. Carcieri  
Governor

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
D E P A R T M E N T O F H E A L T H

*Safe and Healthy Lives in Safe and Healthy Communities*

July 25, 2006

Dear Community Partners:

The publication of *Rhode Island's Plan for Healthy Eating and Active Living* comes at a critical time in our state, a time when coordinated, focused action is needed to reverse the obesity crisis we are facing. The latest national statistics are somewhat encouraging in that there has been no increase in the prevalence of obesity for women the past two years; however, the news about men and children is of great concern. Between 2003 and 2004, the prevalence of obesity among men increased significantly from 28% to 31%; for children, ages 6–11 years, from 11% to 19%, and among adolescents, ages 12–19 years, obesity increased from 11% to 17%.

To reverse this trend, we must all work together to change not just individual behaviors, but the environment in which we live, an environment that supports unhealthy choices. Last year, as I began my new position as Director of Health for Rhode Island, one of the first decisions I made was to identify obesity, in particular childhood obesity, as one of my top five public health priorities for Rhode Island. The numbers tell the story:

- 56% of adults are overweight or obese.
- 37% of adolescents and children, ages 6–17 years, are overweight or obese.
- 42% of WIC preschoolers, ages 2–5 years, are overweight or obese.
- 72% of adults do not eat the recommended five fruits and vegetables per day.
- 51% of adults do not exercise regularly.

My intention is that through the publication of this plan, we will solidify our joint resolve to address the obesity problem decisively and collaboratively. This plan was developed with valuable input from many of you, our community partners, over the course of several years and is a critical step forward in our efforts to prevent and control obesity in our state.

The Department of Health looks forward to leading the state in the achievement of this plan's vision: A Rhode Island where healthy communities support healthy eating and active living. I look forward to working with all of you as we move toward that end. Together we can, and will, make a difference.

Sincerely,



David R. Gifford, MD, MPH  
Director of Health

CANNON BUILDING, Three Capitol Hill, Providence, Rhode Island 02908-5097  
Hearing/Speech Impaired, Dial 711 or Call 1-800-745-5555 (TTY)  
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## Acknowledgements

The Plan was developed under the aegis and support of the US Centers for Disease Control and Prevention (CDC) Cooperative Agreement #U58/CCU122791-04.

The Plan is an ongoing document, reflecting years of work by many people from federal, regional, state, and community organizations. We (the Department of Health) thank all of our partners representing early childhood settings, schools, worksites, healthcare settings, community-based organizations, minority health organizations, faith-based organizations, professional organizations, academic institutions, local businesses, the state legislature, and advocacy groups, among others, for their contribution to the development of the Plan.

Please see **Appendix A** for a complete list of people who gave freely of their time to review national and state obesity data, scientific literature, best and promising practices, national guidelines, and Rhode Island's specific challenges and resources to develop the Plan to prevent and control overweight and obesity among all Rhode Islanders. Their knowledge and experience shaped the Plan to reflect a diversity of viewpoints from a wide variety of organizations across the state.

## List of Abbreviations

BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
CDC	United States Centers for Disease Control and Prevention
CLC	Certified Lactation Counselor
COATs	Childhood Obesity Action Teams
Collaborative	<i>Rhode Island's Healthy Eating and Active Living Collaborative</i>
Dietary Guidelines	<i>2005 Dietary Guidelines for Americans</i>
DVD	Digital Video Disc
HEALTH	Rhode Island Department of Health
HIS	Health Interview Survey
IBCLC	International Board Certified Lactation Consultant
IHW	Initiative for a Healthy Weight
IQ	Intelligence Quotient
NSCH	National Survey of Children's Health
NECON	New England Coalition for Health Promotion and Disease Prevention
NHANES	National Health and Nutrition Examination Survey
OPC	Obesity Planning Council
Plan	<i>Rhode Island's Plan for Healthy Eating and Active Living</i>
RI	Rhode Island
RIDE	Rhode Island Department of Education
RIHSC	Rhode Island Healthy Schools Coalition
SALT	School Accountability for Learning and Teaching
TV	Television
TWOS	Rhode Island Toddler Wellness Overview Survey
URI	University of Rhode Island
US	United States
USDA	United States Department of Agriculture
USDHHS	United States Department of Health and Human Services
VCR	Video Cassette Recorder

WHO	World Health Organization
WIC	United States Department of Agriculture's Special Supplemental Nutrition Program for Women, Infants, and Children
WWCRI	Worksite Wellness Councils of Rhode Island
YMCA	Young Men's Christian Association
YRBS	Youth Risk Behavior Surveillance System

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Many people believe that dealing with overweight and obesity is a personal responsibility. To some degree, they are right, but it is also a community responsibility. When there are no safe, accessible places for children to play or adults to walk, jog or ride a bike, that is a community responsibility. When school lunchrooms or office cafeterias do not provide healthy and appealing food choices, that is a community responsibility. When new or expectant mothers are not educated about the benefits of breastfeeding, that is a community responsibility. When we do not require daily physical education in our schools, that is also a community responsibility. There is much we can and should do together.

—**David Satcher, MD, PhD**, US Surgeon General, *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*, 2001

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## Section 1: **Summary of Plan Objectives**

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## Long-Term Objectives

**Objective 1:** By 2012, decrease the projected rate of increase in the proportion of adults, ages 18 years or older, who are obese by 50% to 0.4% per year, resulting in a prevalence of 24%.

2005 Baseline: Projected rate of increase: 0.8% per year (Prevalence: 21%)

Data Source: RI Behavioral Risk Factor Surveillance Survey

**Objective 2:** By 2012, decrease the projected rate of increase in the proportion of adults, ages 18 years or older, who are overweight by 50% to 0.2% per year, resulting in a prevalence of 39%.

2005 Baseline: Projected rate of increase: 0.4% per year (Prevalence: 38%)

Data Source: RI Behavioral Risk Factor Surveillance Survey

**Objective 3:** By 2012, reduce the proportion of adolescents and children, ages 17 years or younger, who are obese by 50% to 12%.

2003 Baseline: 24%

Data Source: National Survey of Children's Health

**Objective 4:** By 2012, reduce the proportion of adolescents and children, ages 17 years or younger, who are overweight by 50% to 16%.

2003 Baseline: 31%

Data Source: National Survey of Children's Health

**Objective 5:** By 2012, reduce the proportion of children, ages 2–5 years, in the Women, Infants, and Children Supplemental Nutrition Program who are obese by 50% to 12%.

2004 Baseline: 23%

Data Source: RI Women, Infants, and Children Supplemental Nutrition Program

**Objective 6:** By 2012, reduce the proportion of children, ages 2–5 years, in the Women, Infants, and Children Supplemental Nutrition Program who are overweight by 50% to 10%.

2004 Baseline: 19%

Data Source: RI Women, Infants, and Children Supplemental Nutrition Program

## Intermediate Objectives

### Nutrition Objectives

**Objective 1:**            **Increase the proportion of adults, adolescents, and children who reduce excessive caloric intake by improving the nutritional quality of their diets.**

Objective 1a:        By 2010, increase to 35% the proportion of adults, adolescents, and children who eat five or more servings of fruits and vegetables per day.

Objective 1b:        By 2010, decrease to eight ounces or less the average daily consumption of sugar-sweetened beverages among adolescents and children, ages 17 years or younger.

Objective 1c:        By 2010, decrease to 40% the proportion of adolescents and children, ages 17 years or younger, who report eating at a fast food restaurant once per week or more.

### Breastfeeding Objectives

**Objective 2:**            **Increase the proportion of mothers who meet national breastfeeding recommendations.**

Objective 2a:        By 2010, increase to 75% the proportion of mothers who breastfeed their babies in the early postpartum period.

Objective 2b:        By 2010, increase to 50% the proportion of mothers who breastfeed their babies for at least six months.

Objective 2c:        By 2010, increase to 25% the proportion of mothers who breastfeed their babies for at least 12 months.

Objective 2d:        By 2010, increase to 60% the proportion of mothers who breastfeed their babies exclusively for three months.

Objective 2e:        By 2010, increase to 25% the proportion of mothers who breastfeed their babies exclusively for six months.

## Physical Activity Objectives

**Objective 3:**            **Increase the proportion of adults, adolescents, and children who meet national physical activity recommendations.**

Objective 3a:        By 2010, increase to 60% the proportion of adults, ages 18 years or older, who engage in moderate physical activity for at least 30 minutes daily on at least five days of the week.

Objective 3b:        By 2010, increase to 40% the proportion of adolescents and children, ages 17 years or younger, who engage in moderate physical activity for at least 60 minutes daily.

## Screen Time Objectives

**Objective 4:**            **Increase the proportion of adolescents and children who meet national screen time recommendations.**

Objective 4a:        By 2010, increase to 60% the proportion of adolescents and children, ages 17 years or younger, who spend two or fewer hours per day in front of a screen (i.e., TV, video, videogames and recreational computer use).

## Short-Term Objectives in Schools and After-School Programs

- Objective S1: By 2008, increase the number of school districts that have policies limiting unhealthy foods and beverages on campus and encouraging the distribution and consumption of safe and healthy foods and beverages.\* §
- Objective S2: By 2008, increase the number of schools that provide opportunities for skill-based nutrition education and physical activity that are aligned with Rhode Island Health Education Standards and integrated into other subject areas.\* §
- Objective S3: By 2008, increase the number of schools that have farm-to-school programs.\* §
- Objective S4: By 2008, increase the number of school districts that provide staff wellness programs that include obesity prevention, weight management, nutrition education, physical activity, and screen time education.\* §
- Objective S5: By 2008, increase the number of school districts that provide obesity prevention programs, weight management programs, nutrition education, physical activity, and screen time education for families.\* §
- Objective S6: By 2008, increase the number of schools that offer high-quality physical education for 150 minutes per week for Kindergarten–6th graders and 225 minutes per week for 7th–12th graders.\* §
- Objective S7: By 2012, increase the number of schools that have a breastfeeding education curriculum.
- Objective S8: By 2008, increase the number of school districts with policies or programs that provide opportunities for physical activity that are not a substitute for physical education.
- Objective S9: By 2008, increase the number of schools and school districts that provide families with opportunities to be physically active.\* §
- Objective S10: By 2008, increase the number of after-school programs that have policies, programs, and environments that support and promote physical activity and healthy eating behaviors.\* §
- Objective S11: By 2008, increase the number of school districts that have policies or programs that encourage active transportation.\* §
- Objective S12: By 2008, increase the number of schools that have school garden programs.§

Objective S13: By 2008, increase the number of schools that address screen time education in their school improvement plans.

\* Denotes school objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity School-Aged Children Action Plan* (**Appendix D1**).

## Short-Term Objectives in Early Childhood Settings

- Objective ECS1: By 2008, increase the number of licensed childcare facilities that provide menus consistent with the *2005 Dietary Guidelines for Americans* and the United States Department of Agriculture *Child and Adult Care Food Guidelines*.\*
- Objective ECS2: By 2008, increase the number of licensed childcare facilities that have nutrition guidelines consistent with the *2005 Dietary Guidelines for Americans* for all foods and beverages brought from home.\*
- Objective ECS3: By 2008, increase the number of licensed childcare facilities that provide healthy eating and active living education for staff, parents, and children.\*
- Objective ECS4: By 2008, increase the number of licensed childcare facilities that have policies and programs that support physical activity.\*
- Objective ECS5: By 2008, increase the number of licensed childcare facilities that have policies and programs that support reduced screen time.\*
- Objective ECS6: By 2010, increase the number of licensed childcare facilities that have policies, programs, and environments that support breastfeeding mothers.\*

\* Denotes childcare objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.



## Short-Term Objectives in Communities

### Community Access to Healthy Foods Objectives

- Objective CAF1: By 2008, increase the number of communities that have Farmers' Markets or farm stand programs.\* §
- Objective CAF2: By 2008, increase the number of communities that have farm-to-institution programs.\*
- Objective CAF3: By 2008, increase the number of communities that provide enhanced transportation options to get residents to markets that provide affordable fruits and vegetables or to get fruits and vegetables to residents.\*
- Objective CAF4: By 2008, increase the number of communities that offer financial and/or regulatory incentives to small neighborhood grocery and convenience stores to expand their inventory to include healthier food items.\* §
- Objective CAF5: By 2008, increase the number of communities that offer financial and/or regulatory incentives to attract supermarkets or other large food outlets to their communities. §
- Objective CAF6: By 2008, increase the number of communities that have community garden programs. §
- Objective CAF7: By 2008, increase the number of local planning agencies that include food access needs in their planning, zoning, and development processes.\*
- Objective CAF8: By 2008, increase the number of full-service and fast food restaurants that provide healthy food and beverage options.\* §
- Objective CAF9: By 2008, increase the number of full-service and fast food restaurants that provide calorie and key nutrient information at point of purchase. §
- Objective CAF10: By 2008, increase the number of communities that pass ordinances limiting the density of fast food restaurants.
- Objective CAF11: By 2008, increase the number of grocery stores that have in-store promotions of healthy foods. §
- Objective CAF12: By 2010, increase the number of public settings (e.g., parks, stores, restaurants and entertainment venues) with breastfeeding-friendly environments.

\* Denotes community objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity Communities Action Plan (Appendix D3)*.

## Short-Term Objectives in Communities (Con.)

### Community Access to Physical Activity Objectives

- Objective CAP1: By 2008, increase the number of communities that have new or revitalized parks or trails.\* §
- Objective CAP2: By 2008, increase the number of communities that have land management systems that support physical activity.\* §
- Objective CAP3: By 2008, increase the number of communities that complete bicycle and pedestrian improvement projects.\* §

### Community Programs Objectives

- Objective CP1: By 2008, increase the number of communities and community-based organizations that provide culturally and linguistically appropriate obesity prevention and/or weight management programs that teach hands-on cooking and meal planning skills.\* §
- Objective CP2: By 2008, increase the number of communities that have free or low-cost opportunities for structured physical activity. \* §
- Objective CP3: By 2008, all local Women, Infants, and Children (WIC) agencies will implement a breastfeeding peer counselor program and all local WIC agency staff will receive training to provide competent breastfeeding support.
- Objective CP4: By 2008, increase the number of local WIC agencies that implement breast pump distribution programs, policies and environments that support breastfeeding mothers.\*
- Objective CP5: By 2008, increase the number of community-based organizations that have policies or programs to reduce screen time.\*

\* Denotes community objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity Communities Action Plan (Appendix D3)*.

## Short-Term Objectives in Healthcare

- Objective H1: By 2008, increase the number of healthcare providers who assess nutrition and physical activity and provide culturally and linguistically appropriate counseling about healthy eating and physical activity at annual preventive visits.\*
- Objective H2: By 2008, increase the number of healthcare providers who refer patients with unhealthy eating patterns to nutritionists and who refer patients with low physical activity levels to community resources.\*
- Objective H3: By 2008, increase the number of healthcare providers who routinely measure height and weight, calculate Body Mass Index (BMI), and provide feedback and interpretation of BMI to patients at annual preventive visits.\*
- Objective H4: By 2008, increase the number of health insurers that reimburse physicians, nurses, and nutritionists for routine Body Mass Index (BMI) assessment, interpretation, and feedback, and for counseling regarding nutrition and physical activity.\*
- Objective H5: By 2008, increase the number of health insurers that discount insurance premiums for employers offering obesity prevention and/or weight management programs.\*
- Objective H6: By 2012, all maternity care hospitals will implement at least five of the Baby-Friendly Hospital Initiative's *Ten Steps to Successful Breastfeeding*.\*
- Objective H7: By 2010, increase the number of maternity care hospitals that are designated as Baby-Friendly in accordance with the United Nations Children's Fund (UNICEF) and World Health Organization's Baby-Friendly Hospital Initiative.
- Objective H8: By 2010, all health insurers will increase their standard, reimbursable service coverage for lactation support services, breastfeeding classes, and breastfeeding equipment.\*
- Objective H9: By 2008, increase the number of maternal and child healthcare providers who become Certified Lactation Counselors.

\* Denotes healthcare objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

## Short-Term Objectives in Healthcare (Con.)

- Objective H10: By 2012, culturally appropriate, evidence-based breastfeeding training will be integrated into continuing education requirements for all maternal and child health nurses and into the curriculum at all health professional schools.
- Objective H11: By 2008, implement a system that enables breastfeeding mothers to receive in-home lactation consultation with International Board Certified Lactation Consultants.
- Objective H12: By 2010, increase the number of maternity care hospitals, private clinical practices, and commercial pharmacies that implement an online breastfeeding pharmacology program.
- Objective H13: By 2012, increase the number of maternity care hospitals, public health clinics, and facilities that implement policies that ban the use of informational and educational materials provided by or bearing the logos of infant formula manufacturers.
- Objective H14: By 2008, improve access to culturally-appropriate mental health and behavioral services across the lifespan to break the cycle of obesity associated with depression, anxiety, and related disorders.\*

\* Denotes healthcare objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

## Short-Term Objectives in Worksites

- Objective W1: By 2008, increase the number of worksites that have multi-component weight management programs that include both physical activity and nutrition.\*
- Objective W2: By 2008, increase the number of worksites that provide healthy food options for employees in the cafeteria and in vending machines.\*
- Objective W3: By 2008, increase the number of worksites that have healthy food and beverage policies for worksite functions, meetings, and events.\*
- Objective W4: By 2008, increase the number of worksites that have Farmers' Markets or farm-to-worksite programs.\*
- Objective W5: By 2008, increase the number of worksites that provide calorie and key nutrient information at point of purchase.
- Objective W6: By 2010, increase the number of worksites that have policies, programs, and environments that support breastfeeding mothers.\*
- Objective W7: By 2008, increase the number of worksites that have policies, programs, or facilities that support physical activity.\*
- Objective W8: By 2008, increase the number of worksites that have policies, programs, or environments that support active transportation.
- Objective W9: By 2008, increase the number of worksites that offer employee benefit plans that reduce the cost of physical activity programs.\*

\* Denotes worksite objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

## Communications Objectives

- Objective C1: By 2008, increase the number of obesity prevention partners who use consistent messages about obesity, key behavioral risk factors, and obesity prevention programs, policies, and environmental supports in educational and promotional materials, media activities, and other intervention activities.\* §
- Objective C2: By 2010, increase the amount of quality media coverage of obesity, key behavioral risk factors, and obesity prevention programs, policies, and environmental supports.\* §
- Objective C3: By 2010, launch a statewide media campaign to promote healthy eating and active living.\* §
- Objective C4: By 2008, increase the number of communications systems that allow obesity prevention partners to share information about obesity, key behavioral risk factors, and obesity prevention programs, policies, and environmental supports. §

\* Denotes communications objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity Communications Action Plan* (**Appendix D4**).

## Data, Surveillance, and Evaluation Objectives (DSE)

- Objective DSE1: By 2006, conduct a needs assessment to document the current state of data for Rhode Island. §
- Objective DSE2: By 2007, determine the optimal data system for Rhode Island. §
- Objective DSE3: By 2007, develop priorities for an optimal surveillance system for healthy weights and key risk factors for Rhode Island. §
- Objective DSE4: By 2008, develop a plan for implementation of the surveillance system for healthy weights and key risk factors for Rhode Island. §
- Objective DSE5: By 2009, disseminate and implement the plan for a comprehensive data system for Rhode Island. §
- Objective DSE6: By 2010, implement a comprehensive surveillance system in Rhode Island that will:
- Encompass children of all age groups.
  - Assess weight by measurement (not self-report).
  - Be reportable for each city and town in Rhode Island.
  - Be reportable for each major ethnic and racial group and socioeconomic position. §

§ See *Childhood Obesity Data and Evaluation Action Plan* (**Appendix D5**).

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## Section 2: **Developing the Plan**

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## Purpose

*Rhode Island's Plan for Healthy Eating and Active Living* (the Plan) is a call to action for schools, childcare providers, worksites, healthcare providers, insurers, communities, and policy makers to implement changes that will promote and support healthy eating and active living. The Plan is a road map that will guide the way to obesity prevention and control in Rhode Island.

The goals of the Plan are to:

- Involve schools, after school programs, early childhood providers, worksites, healthcare providers and insurers, and communities in obesity prevention efforts.
- Identify evidence-based and promising strategies for improving nutrition, increasing breastfeeding initiation and duration, increasing physical activity, and reducing screen time (e.g., sedentary time spent watching TV or playing videogames).
- Encourage collaboration between partners by identifying shared priorities.
- Coordinate state obesity prevention efforts to have a greater statewide impact, leverage funding, and increase efficiency.

Many individuals and organizations can use the Plan, including:

- |                                       |                                      |
|---------------------------------------|--------------------------------------|
| • School administrators and educators | • Local public officials             |
| • Childcare providers                 | • Municipal planners                 |
| • Business owners and managers        | • Transportation engineers           |
| • Insurers                            | • Fitness center owners and managers |
| • Physicians and healthcare providers | • Food vendors and distributors      |
| • Community-based organizations       | • Public policy advocates            |
| • Minority health organizations       | • Professional organizations         |
| • Faith-based organizations           | • Researchers                        |
| • Restaurant owners and managers      | • Community coalitions               |
| • Grocery store owners and managers   | • Media                              |

## Theoretical Framework

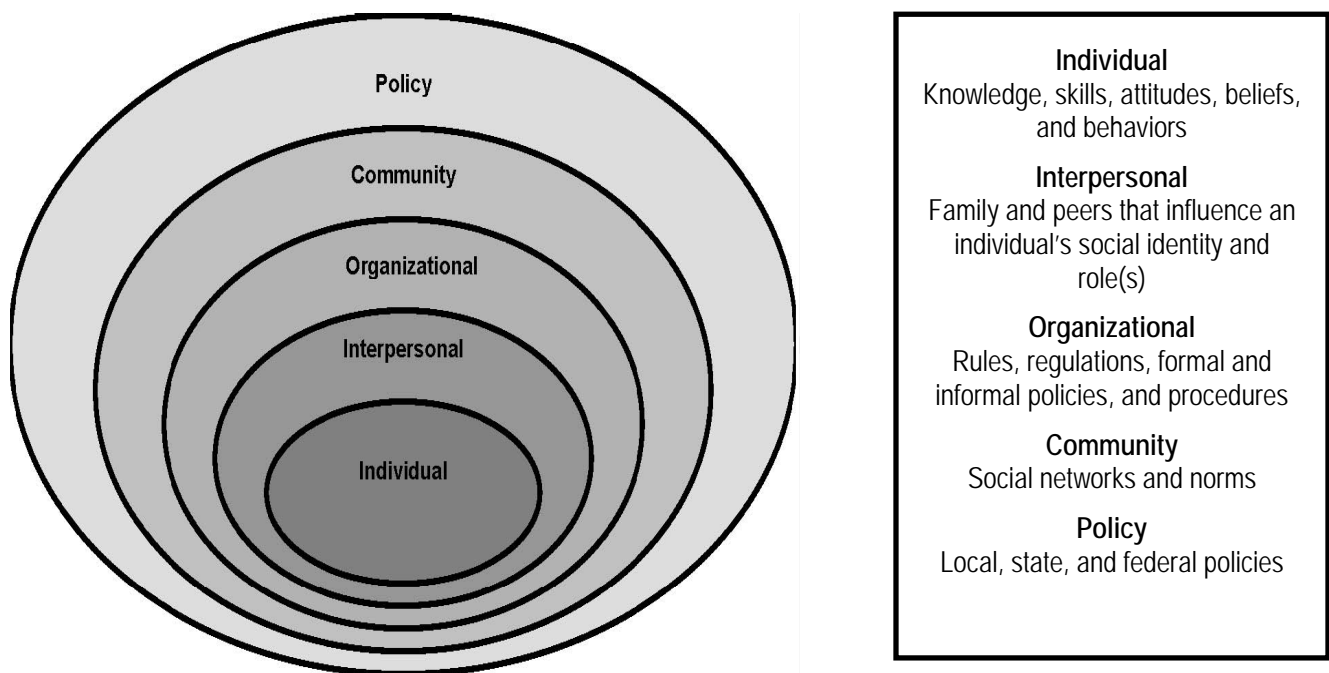
Overweight and obesity are difficult problems to solve. The Socioecological Model provides a framework for understanding the important role the social and physical environment plays in shaping individual behavior (**Figure 1**). The model identifies five levels of influence on health behavior: individual, interpersonal, organizational, community and policy. The Plan was developed to identify objectives and strategies that will affect all levels of this model.

At the center of the model displayed below is the individual. Interventions that target the inner levels of the model (individual and interpersonal) provide individuals with the knowledge, skills, attitudes, and peer support that can help them choose to improve their eating or activity habits. Interventions at these levels can teach people why they should engage in healthy behaviors and provide them with the skills and support they may need to overcome barriers and be successful.

Surrounding the individual are the layers of the environment that influence health decisions. Interventions that target the outer levels of the model (organizational, community, and policy) change the social, environmental, and policy factors that make it easy or difficult for people to act on the health information they receive from family, friends, healthcare providers, and the media. Interventions that target these levels may change a person's surroundings to make it easier, safer, more convenient, and less costly to adopt healthy behaviors.

The best route to sustainable behavior change is to target both the individual and the many outside forces that influence the individual. In this way, individual behavior change is supported by environments that make the healthy choice the easy and affordable one.

**Figure 1. The Socioecological Model**



## Alignment with Healthy People 2010

In 2000, the US Department of Health and Human Services (USDHHS) launched the third generation of national health objectives with the adoption of Healthy People 2010.

The overarching goals of Healthy People 2010 are to:

1. Increase quality and years of healthy life, and
2. Eliminate health disparities.

Healthy People 2010 has identified ten Leading Health Indicators, or major health issues, for the nation:

- |                                |                          |
|--------------------------------|--------------------------|
| 1. Physical Activity           | 6. Mental Health         |
| 2. Overweight and Obesity      | 7. Injury and Violence   |
| 3. Tobacco Use                 | 8. Environmental Quality |
| 4. Substance Abuse             | 9. Immunization          |
| 5. Responsible Sexual Behavior | 10. Access to Healthcare |

The Plan is in direct alignment with both the overarching goals of Healthy People 2010 and its obesity prevention objectives.

Rhode Island, like most other states, has adopted the Healthy People 2010 agenda using the two overarching goals, ten Leading Health Indicators, and the corresponding objectives. Healthy Rhode Island 2010 provides a road map toward a healthier Rhode Island by 2010.<sup>1</sup> Objectives related to two of the ten Leading Health Indicators, physical activity and overweight and obesity, in both Healthy People 2010 and Healthy Rhode Island 2010 are detailed in **Appendices B and C**, respectively. Both of these documents provide an overview of evidence-based strategies to develop and implement interventions to improve the quality and years of life and to eliminate disparities.

## Involvement of Stakeholders

The Plan was developed as a collaborative effort between federal, regional, state and community partners and the Initiative for a Healthy Weight, Rhode Island's obesity prevention and control program. The multi-step planning process involved partners at each stage of development. For a complete list of partners, see **Appendix A**.

### Step 1: Initiative for a Healthy Weight

In 2000, the Rhode Island Department of Health (HEALTH) was one of the first six states to receive funding from the US Centers for Disease Control and Prevention (CDC) to prevent and control overweight and obesity. HEALTH established the Initiative for a Healthy Weight (IHW) to build the state's capacity to address the factors that contribute to overweight and obesity (Box 1). As an initial step in the capacity building process, IHW convened individuals and organizations addressing obesity, nutrition, and physical activity to help develop a state plan.

#### **Box 1. The vision, mission, goal and strategies of the Initiative for a Healthy Weight**

### Initiative for a Healthy Weight

#### Vision

A Rhode Island where safe and healthy communities support healthy eating and active living.

#### Mission

The mission of IHW is to prevent and control overweight and obesity among all Rhode Islanders. IHW coordinates, supports, and implements activities to promote lifelong healthy eating and active living through partnerships, community capacity building, policy and environmental changes, and targeted interventions.

#### Goal

Lead Rhode Island in achieving the objectives set forth in *Rhode Island's Plan for Healthy Eating and Active Living*.

#### Overarching Strategies

- Build and sustain partnerships for communication, coordination, and collaboration.
- Build community capacity through technical assistance, training, and resource development.
- Develop and support policy and environmental improvement initiatives for healthy communities.
- Implement CDC-supported, targeted interventions in select populations.

## Step 2: Obesity Planning Council

IHW convened the Obesity Planning Council (OPC) in 2000 to develop recommendations for the Plan. Over 100 OPC members represented government agencies, professional organizations, hospitals, insurers, advocacy groups, minority health organizations, community-based and faith-based organizations, academic institutions, local businesses, and interested community members. During a two-year period, the OPC used scientific literature, best and promising practices, the Socioecological Model, national guidelines, and their knowledge and experience to develop a set of recommendations for schools, worksites, healthcare settings, and communities that considered the state's specific challenges and resources.

## Step 3: Draft Plan

Building on the work of the OPC and guided by CDC's State Plan Index, IHW developed a draft of the Plan with measurable objectives for healthy eating and active living in Rhode Island. In 2005, the draft of the Plan was distributed to state and community partners for feedback and revision.

## Step 4: Childhood Obesity Priority and Action Teams

In 2005, David R. Gifford, MD, MPH, HEALTH Director, declared childhood obesity a priority for the state and initiated the formation of five Childhood Obesity Action Teams (COATs):

- School-Aged Children
- Early Childhood
- Communities
- Communications
- Data and Evaluation

COATs included community representatives, professional groups, healthcare providers, researchers, and state agencies. Staff from both IHW and HEALTH's Division of Family Health staffed COATs. Each COAT was charged with using the draft objectives in the Plan to develop their respective action plans (**Appendix D**). COATs also provided IHW with recommendations for the Plan.

## Step 5: Leadership Summit

In January 2006, IHW convened federal, regional, state, and community nutrition and physical activity leaders to assess current initiatives, identify priorities for the state, and strategize how stakeholders could assist in these efforts. Summit participants identified the following priorities for obesity prevention and control in Rhode Island:

- School policies that support healthy eating, particularly removing the junk food from schools, and increase daily physical activity, beyond just physical education.
- Culturally and linguistically appropriate community-based programs for obesity prevention and control.
- Sustained surveillance systems, with clearly communicated methods and results and specifically involving healthcare providers in the measurement of Body Mass Indices.

IHW used the information gleaned from this summit to create a final set of objectives to present to all partners for review and comment.

## Step 6: Plan Revision

Based on recommendations from OPC members, COATs, and the Leadership Summit participants, IHW revised the Plan.

## Step 7: Rhode Island's Healthy Eating and Active Living Collaborative

At the first annual Healthy Eating and Active Living summit in June 2006, IHW convened OPC members, COATs, Leadership Summit participants, and new partners to form *Rhode Island's Healthy Eating and Active Living Collaborative* (the Collaborative). The Collaborative will be instrumental in implementing the Plan. The Collaborative's first charge was twofold: 1) finalize the objectives in the Plan, and 2) identify priority objectives for implementation. Incorporating the COATs, nine workgroups formed to provide final input into the Plan at the summit:

- Early Childhood Settings
- Schools and After-School Programs
- Healthcare and Health Plans
- Worksites
- Community Access to Physical Activity (Built Environment)
- Community Access to Healthy Foods (Built Environment)
- Community-Based Programs and Resources
- Data, Surveillance, and Research
- Communications and Media

IHW used these workgroups' valuable feedback to finalize and prioritize objectives for the Plan.

Because Rhode Island has a very successful and active Breastfeeding Coalition, IHW decided to utilize the Coalition's expertise in lieu of forming a separate workgroup. At the summit, partners were encouraged to join the Breastfeeding Coalition, if interested. IHW worked closely with HEALTH's Breastfeeding Coordinator and the Breastfeeding Coalition in the development and prioritization of the breastfeeding objectives for the Plan.

## Step 8: Final Revisions and Publication

IHW posted the Plan on its website for a week-long public review period, and presented the Plan in a public forum. The Plan reflects all of the recommendations garnered to date from a diverse group of partners. The final Plan was submitted to CDC, posted on the IHW website, and announced to partners.

## Keeping the Plan Current

IHW and the Collaborative will review the Plan on an annual basis to:

- Evaluate progress on objectives.
- Modify strategies for implementation using current, evidence-based recommendations for improving nutrition, increasing breastfeeding, increasing physical activity, and reducing screen time.
- Establish an annual agenda with priorities for obesity prevention and control in Rhode Island.

In particular, short-term objectives, which only cover a two to three year timeframe, will need to be revisited as objectives are met, strategies are modified, and new priorities are established.

IHW will issue annual reports based on these reviews. These reports will be presented at annual summits of the Collaborative, posted on the IHW website, and submitted to CDC.

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## Section 3: **Rhode Island's Logic Model for Obesity Prevention and Control**

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## Rhode Island's Logic Model for Obesity Prevention and Control

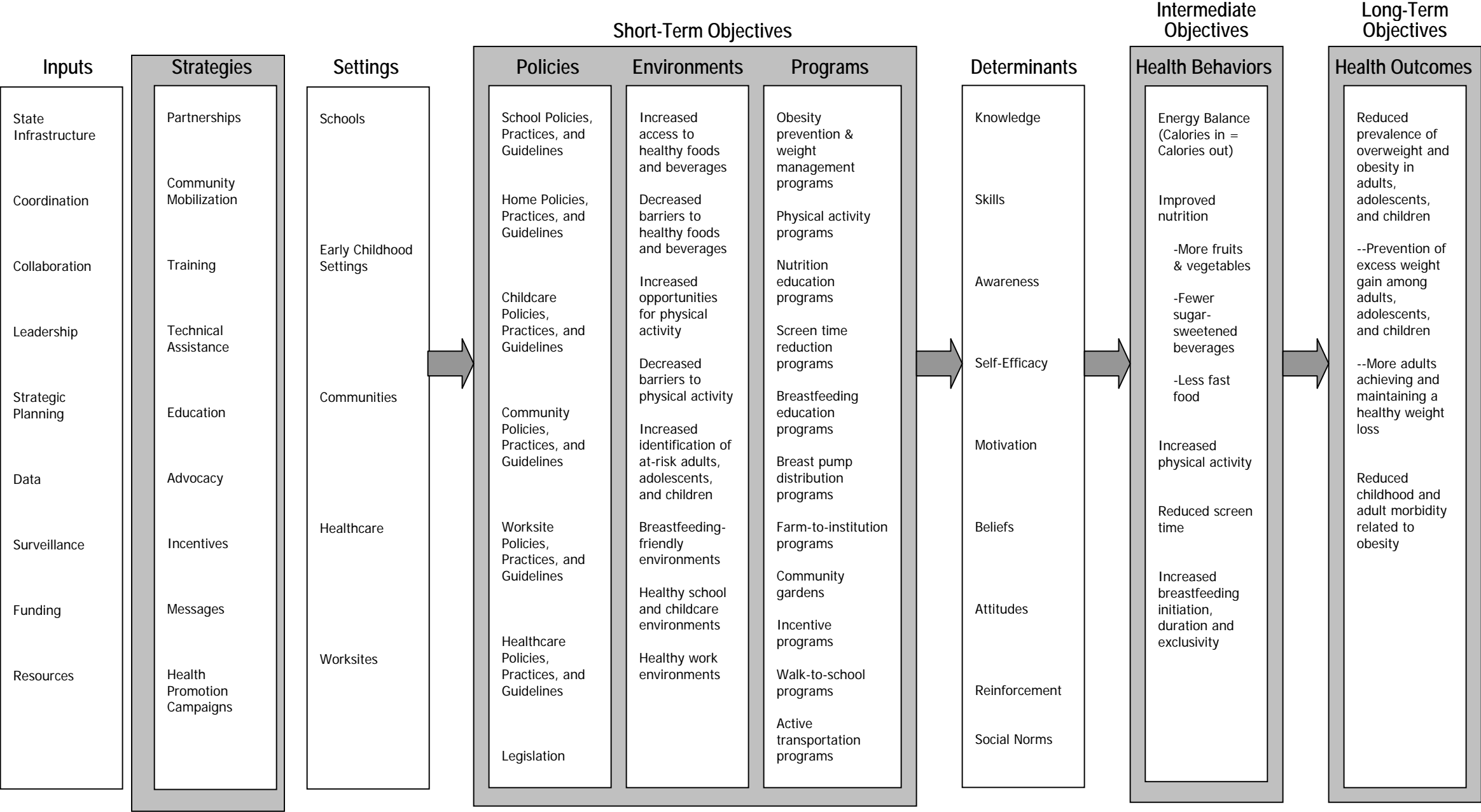
A logic model is a systematic and visual way to present the relationships among the resources available to operate a program, the program activities that are planned, and the changes or results that the program hopes to achieve. Based on the program's underlying theories and assumptions,<sup>2</sup> the logic model provides a road map, highlighting how the program is expected to work, which activities need to come before others, and how desired outcomes will be achieved.

Rhode Island's Logic Model for Obesity Prevention and Control (**Figure 2**) is based on the underlying premise that the prevalence of overweight and obesity can be reduced by preventing excess weight gain among adults, adolescents, and children; and by helping overweight or obese adults achieve and maintain a healthy weight loss.

Rhode Island's Logic Model for Obesity Prevention and Control identifies:

- **State Inputs** (first column): state contributions to obesity prevention and control.
- **Strategies** (second column): methods that will be used to achieve the state plan objectives.
- **Settings** (third column): intervention channels through which the state will work.
- **Short-Term Objectives** (fourth, fifth and six columns): short-term intervention outcomes, which are policies, programs, and environmental supports for healthy eating and active living in the various settings.
- **Determinants** (seventh column): personal determinants shown by behavioral theory to precede individual behavior change.
- **Intermediate Objectives** (eighth column): intermediate intervention outcomes, which are the targeted individual behavior changes (i.e., improved nutrition, increased breastfeeding, increased physical activity, and reduced screen time) that have been shown to impact obesity.
- **Long-Term Objectives** (ninth column): long-term health outcomes for overweight, obesity, and obesity-related diseases.

Figure 2. Rhode Island’s Logic Model for Obesity Prevention and Control



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Section 4: **Long-Term Objectives**  
***Overweight and Obesity***

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## Overweight and Obesity: A Public Health Priority

Obesity has increased at an alarming rate over the last two decades, doubling in children and adults, and tripling in adolescents over the last two decades. Today, 66% of adults and 32% of children are overweight or obese.<sup>3,4</sup>

Research has linked overweight and obesity to many debilitating and life-threatening chronic health conditions. Illness from obesity ranks with poverty, smoking, and problem drinking<sup>5</sup> and is linked to 112,000 excess deaths per year.<sup>6</sup> That makes obesity a leading contributor to premature death, second only to tobacco. Because of the rising obesity rates, this may be the first generation of children who live shorter lives than their parents.<sup>7</sup>

The prevalence and consequences of overweight and obesity have prompted many organizations to declare these conditions major health concerns:

- The World Health Organization (WHO) declared excess weight one of the top five health risks in developed nations.
- The US Public Health Services and the US Surgeon General have made obesity a national priority.
- Healthy People 2010 has selected overweight and obesity as one of the Leading Health Indicators for the next decade.

Rhode Island recognizes the importance of addressing overweight and obesity:

- One of Healthy Rhode Island 2010's leading health indicators is overweight and obesity.
- HEALTH established IHW to lead the state in preventing and controlling obesity.
- Both the Governor and the Health Director identified overweight and obesity as priorities.

## Defining Overweight and Obesity

Overweight and obesity refer to body weight ranges that are above what is considered healthy. The terms also identify weight ranges that have been shown to increase the likelihood of certain chronic diseases and other health problems.

### Adults

For adults, overweight and obesity are determined using weight and height to calculate a number called Body Mass Index (BMI). BMI is used because, for most people, it relates to the amount of body fat.

Adult weight status classifications include underweight, normal weight, overweight, and obese (**Table 1**). BMI can be estimated using a height and weight chart (**Appendix E**) or can be calculated using the mathematical formula below.

$$\text{BMI} = \frac{\text{Weight in pounds}}{\text{Height in inches} \times \text{Height in inches}} \times 703$$

Although BMI relates to an individual's amount of body fat, BMI does not directly measure body fat. As a result, some people, such as athletes, may have a BMI that identifies them as overweight even though they do not have excess body fat.

### Children

In adolescents and children, BMI is age- and sex-specific and is often referred to as BMI-for-age. BMI-for-age is used as a screening tool to identify possible weight problems in children. CDC and the American Academy of Pediatrics recommend the use of BMI to screen for overweight in children beginning at age two.

To determine BMI-for-age, BMI is calculated from a child's weight and height. Then, the BMI number is plotted on CDC BMI-for-age sex-specific growth charts to obtain a percentile ranking. The percentile indicates the relative position of the child's BMI number among children of the same sex and age. BMI-for-age weight status categories and the corresponding percentiles are shown in **Table 2**. Weight status classifications for adolescents and children include underweight, healthy weight, at risk of overweight, and overweight.

Although there is no BMI-for-age classification for obesity in individual children, populations of children can be described as obese. Throughout the Plan, the term obese will be used when referring to populations of children at or above the 95<sup>th</sup> BMI-for-age percentile and the term overweight will be used when referring to populations of children between the 85<sup>th</sup> and 95<sup>th</sup> BMI-for-age percentiles.

**Table 1. Adult weight status by BMI**

BMI	Weight Status
$\leq 18.5$	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
$\geq 30.0$	Obese

**Source:** CDC, 2006

**Table 2. Child and adolescent weight status by BMI-for-age percentiles**

BMI-for-age percentiles	Weight Status
$< 5^{\text{th}}$	Underweight
$5^{\text{th}}$ to $<85^{\text{th}}$	Healthy Weight
$85^{\text{th}}$ to $<95^{\text{th}}$	At Risk for Overweight
$\geq 95^{\text{th}}$	Overweight

**Source:** CDC, 2006

## National Prevalence and Trends

### Adults

Two-thirds (66%) of US adults are overweight or obese, with 32% of adults classified as obese. In 1999, no US state reported a prevalence of obesity at or above 20%; yet today, 35 states report a prevalence of obesity at or above 20%. While the prevalence of obesity among men increased from 28% to 31% between 2003 and 2004, the prevalence among women has remained constant at 33%.

### Children

Results from the 2003–2004 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 19% of children, ages 6–11 years and 17% of adolescents, ages 12–19 years, are obese (**Table 3**). One in six (17%) children is obese and one in three (33%) is overweight.<sup>3</sup> Obesity increased from 11% to 19% among children, ages 6–11 years, between 1988–94 and 2003–2004. Among adolescents, ages 12–19 years, obesity increased from 11% to 17% during the same period. Between 1999 and 2004, there was a significant increase in the prevalence of overweight among girls (14% in 1999 to 16% in 2004). Similarly, among boys, the prevalence increased significantly from 14% in 1999 to 18% in 2004.<sup>3</sup>

**Table 3. Obesity among US adolescents and children, ages 6–19 years, select years 1963–65 through 2003–04**

Age (years) <sup>1</sup>	1963–65 1966–70 <sup>2</sup>	1971–74	1976–80	1988–94	1999–2000	2001–02	2003–04
6–11	4.2%	4%	6.5%	11.3%	15.1%	16.3%	18.8%
12–19	4.6%	6.1%	5%	10.5%	14.8%	16.7%	17.4%

**Source:** NHANES, 1963–65 to 2003–04

<sup>1</sup> Excludes pregnant women starting with 1971–74. Pregnancy status not available for 1963–65 and 1966–70.

<sup>2</sup> Data for 1963–65 are for children, ages 6–11 years; data for 1966–70 are for adolescents, ages 12–17 years, not 12–19 years.

## Rhode Island Prevalence and Trends

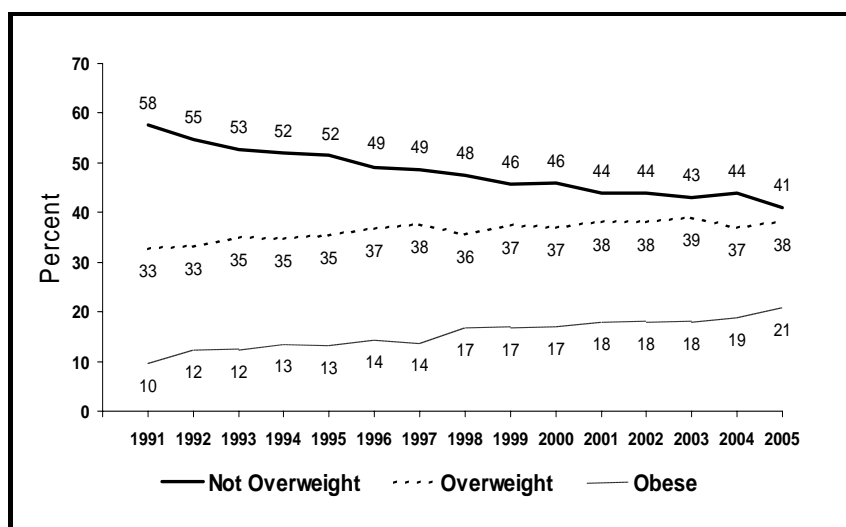
In Rhode Island, the prevalence and trends of overweight and obesity among adults and older children mirror those of the rest of the country. However, Rhode Island differs from the United States as a whole in its very high prevalence of overweight and obesity among young children.

### Adults

Based on 2002–2004 data, about 38% of RI adults, ages 18 years or older, are overweight, and 19% are obese, with a total of 57% of adults either overweight or obese.<sup>8,9</sup> This compares with 37% overweight, 20% obese, and 57% either overweight or obese reported for US adults. As these statistics are based on self-reported height and weight measures, they may be underestimates of overweight and obesity rates.<sup>10</sup> For example, actual height and weight measurements indicate that 66% of US adults are overweight or obese, versus 57% based on self-report. Self-reported data are all that is currently available in Rhode Island.

The proportion of RI adults who are overweight or obese has increased significantly over the past 15 years (**Figure 3**). While the United States as a whole narrowly surpasses Rhode Island in overweight and obesity, the trend is very similar.

**Figure 3. Weight status among RI adults, 1991–2005**

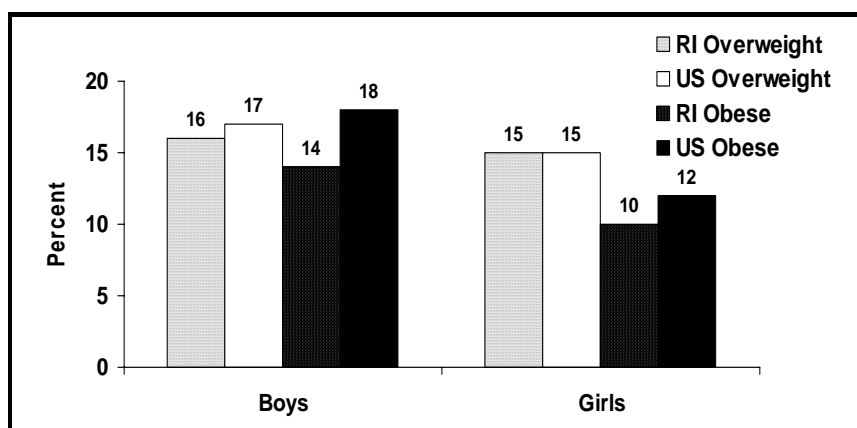


**Source:** RI BRFSS, 1991–2005

## Children

Marked increases in overweight and obesity among children have also been observed. In the 2003 National Survey of Children's Health (NSCH),<sup>2</sup> parent-reported measures of height and weight for their children showed that about 15% of adolescents and children, ages 6–17 years, (14% boys and 17% girls) were overweight and another 16% (boys 17% and girls 15%) were obese. For children, ages 10–17 years, the proportions of RI boys and girls who are overweight are similar to the proportions for all US children (**Figure 4**). The proportions for obesity, however, are much lower for Rhode Island compared with the United States. When surveyed directly, 13% of high school students report a height and weight consistent with obesity, and 15% with overweight.<sup>4</sup>

**Figure 4. Overweight and obesity among US and RI children, ages 10–17 years, by gender, 2003**



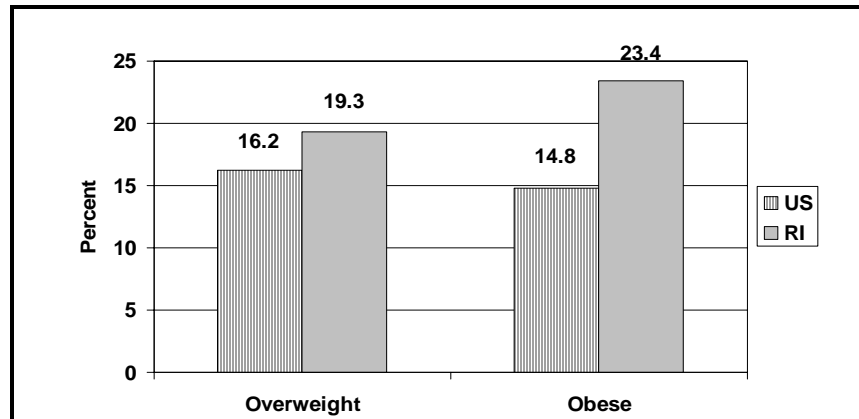
**Source:** NSCH, 2003

Nationally, the proportion of children who are obese has risen from about 5% in the early 1970s to the present levels of more than 15%.<sup>11</sup> In Rhode Island, the proportion of high school students who report their height and weight consistent with obesity has increased from 9% to 13%, and for overweight from 14% to 15% from 2001 to 2005. Also, the percentage of kindergartners who are obese has increased from 17% in 2001–2002 to 20% in 2004–2005, a 3% increase, according to height and weight data collected by the RI Immunization Program.<sup>12</sup>



The prevalence of obesity in preschoolers is of concern in Rhode Island. Data are only available for those participating in the US Department of Agriculture's (USDA) Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), which is limited to children of families with annual household incomes less than or equal to 185% of the poverty level. Of children, ages 2–4 years, in WIC, about 19% are overweight and 23% are obese. These proportions are considerably higher than the 16% and 15%, respectively, for US preschoolers in WIC (**Figure 5**).<sup>13</sup>

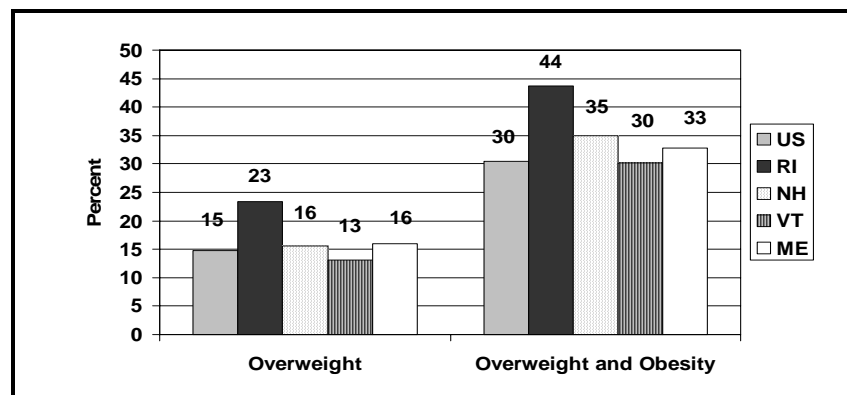
**Figure 5. Overweight and obesity among US and RI children, ages 2–5 years, in WIC, 2004**



**Source:** WIC, 2004; Polhamous, et al, 2006

In addition, children in WIC are more likely to be obese than overweight, which is opposite from the national pattern. Also, compared to other New England states, Rhode Island has a higher proportion of children in WIC who are overweight or obese (**Figure 6**).

**Figure 6. Overweight and obesity among US, RI, and New England children, ages 2–5 years, in WIC, 2004**



**Source:** WIC, 2004; Polhamous, et al, 2006

# Disparities

## Adults

While overweight and obesity affect the entire population, certain population groups are disproportionately affected.

### Age

Among US adults, ages 18 years or older, the prevalence of overweight increases with age. For adults, ages 18–24 years, 25% are overweight, compared to 38% of adults, ages 35–44 years, and 41% of adults, ages 65 years or older.<sup>14</sup> The prevalence of obesity is also higher in older US adults, up to age 65. Twenty-six percent of adults, ages 45–64 years, are obese, versus 12% of adults, ages 18–24 years. However, among adults, ages 65 years or older, the prevalence of obesity drops to 20%. Similarly, overweight among RI adults increases with age, and obesity increases with age until age 65.

### Gender

Disparities also exist by gender. Forty-five percent of men, ages 18 years or older, are overweight, compared to 30% of women. However, there are no gender disparities in the prevalence of obesity (21% for both men and women). In Rhode Island, men are more likely to be either overweight (47%) or obese (19%) compared with women (29% and 18%).

### Race and Ethnicity

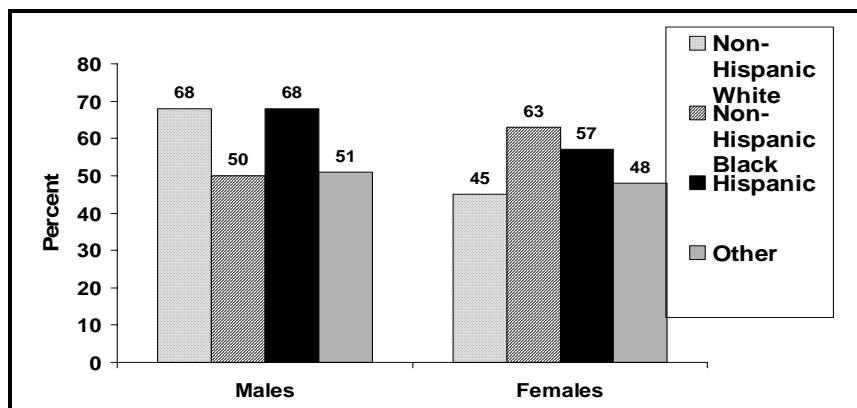
In the United States, the prevalence of overweight is similar (37–38%) among adults, ages 18 years or older, across racial and ethnic groups. However, a larger proportion of Black (30%) and Hispanic (23%) adults are obese than Whites (20%). Of the 436,000 RI adults who are overweight or obese, the vast majority are non-Hispanic Whites. While the largest numbers of overweight or obese adults are non-Hispanic Whites, a higher proportion of Hispanic adults are overweight or obese (62%) than non-Hispanic White and Black adults (56% for each group).

### Gender and Race/Ethnicity

US and RI data demonstrate that there are considerable racial and ethnic disparities when males and females are considered separately. Nationally, for women, the non-Hispanic Black population has the highest prevalence of overweight (78%) and obesity (51%). For men, the Mexican American population has the highest prevalence of overweight (74%) and obesity (29%).

In Rhode Island, there are also disparities by race and gender (**Figure 7**). Non-Hispanic White men (68%) and Hispanic men (68%) are more likely to be overweight or obese than non-Hispanic Black men (50%). White non-Hispanic women (45%) are less likely to be overweight or obese than either non-Hispanic Black (63%) or Hispanic women (57%).

**Figure 7. Overweight and obesity among RI adults, by gender and race/ethnicity, 2002–2004**



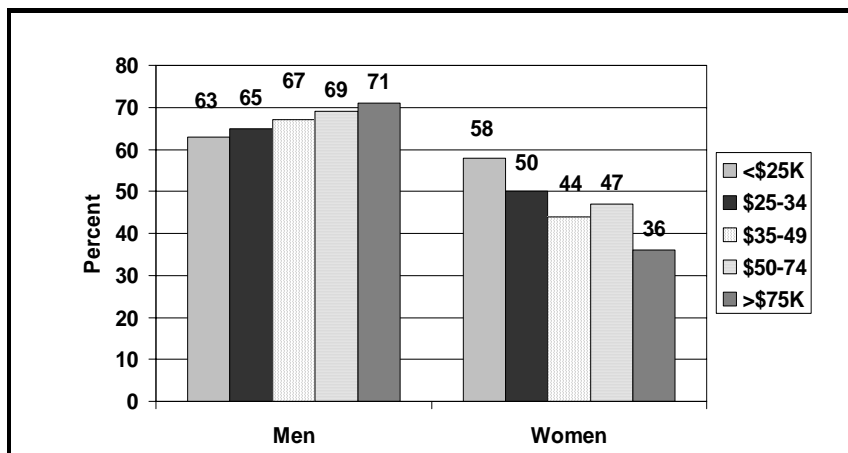
Source: RI BRFSS, 2002–2004

### Socioeconomic Status

Many of the ethnic and racial disparities in overweight and obesity may be due to the underlying disproportionate amount of poverty among these groups and the related lack of resources to obtain nutritious food and a safe environment for physical activity.<sup>15,16</sup> In the United States, and Rhode Island, the prevalence of overweight increases with income. Forty percent of US adults and 41% of RI adults, ages 18 years or older, with household incomes of \$50,000 or higher are overweight versus 32% of US and 34% of RI adults with incomes below \$15,000. However, the picture is much different for obesity. A larger proportion of US (25%) and RI (20%) adults, ages 18 years and older, with incomes below \$15,000 are obese versus US (19%) and RI (15%) adults with incomes of \$50,000 or higher.

In Rhode Island, overweight and obesity are more common among women with less education or lower incomes. Fifty seven percent of women with less than a college education were either overweight or obese compared with 37% of women who graduated college. Similarly, 58% of women with less than a \$25,000 annual household income were overweight or obese compared with 36% of women with more than a \$75,000 annual household income (**Figure 8**). In contrast, education does not appear to make a difference for men (66–67% overweight or obese at all levels of education), and men with higher incomes are more likely to be overweight or obese (71%) than lower income men (63%). The disparities for men, as opposed to women, do not seem to be based on income.

**Figure 8. Overweight and obesity among RI adults, by gender and income, 2002–2004**



**Source:** RI BRFSS, 2002–2004

### Disability

In both the United States and Rhode Island, people with disabilities (27% of US and 30% of RI adults) continue to exhibit obesity rates nearly double those without disabilities (16% of US and 17% of RI adults).

## Children

There are also disparities in overweight and obesity among adolescents and children.

### Age and Gender

In the United States, the proportion of both male and female high students who are overweight is similar (16%).<sup>17</sup> However, the proportion of boys who are overweight decreases with age, with 18% being overweight in 9th grade and 14% being overweight in 12th grade. US male high school students (16%) are more likely to be obese than females (10%), and these numbers remain similar across grade levels.

RI children, ages 6–12 years, are considerably more likely to be obese (22%) than children, ages 13–17 years (8%). For younger children, RI boys in WIC, ages 2–4 years, are more likely than girls to be obese (26% vs. 21%). There is no difference between boys and girls for the proportion who are overweight, which is about 19%.

### Race and Ethnicity

In the United States, 20% of Black and 17% of Hispanic high school students are overweight, compared to 15% of Whites. The disparity is greater with obesity. Seventeen percent of Black and Hispanic high school students are obese, compared to 12% of Whites.

For US children, ages 6–11 years, a larger percentage of non-Hispanic Black boys (17%) and girls (23%) and Mexican-Americans boys (27%) and girls (17%) are obese compared to White boys (14%) and girls (13%). Among children, ages 12–19 years, the prevalence of obesity is higher among non-Hispanic Black and Mexican American boys (19% and 25%, respectively) and girls (24% and 20%, respectively) than among White boys (15%) or girls (13%).

In Rhode Island, about 15% of White children are overweight compared with 17% of Black children and 34% of children whose parents report their race as “mixed.” In Rhode Island, all racial groups are less likely to be obese compared with national data, but in both state and national data, Hispanic Black children are at the highest risk of obesity (27% in Rhode Island and 31% in the United States).

In Rhode Island, disparities by ethnicity in overweight and obesity exist, as well. Hispanic children are more likely to be obese (33%) than non-Hispanic children (14%), while non-Hispanic children are more likely to be overweight (16%) than Hispanic children (13%). Nationally, Hispanic children are at higher risk of both overweight and obesity compared with non-Hispanic children. A child participating in WIC is somewhat more likely to be overweight or obese if his or her mother speaks Spanish or is overweight herself.

### Socioeconomic Status

Nationally, children from low-income families are at greater risk of overweight and obesity than children from higher income families. Among children, ages 2–19 years, obesity is more prevalent among low-income children.<sup>18</sup> Similarly, the National Longitudinal Survey of Youth or children, ages 4–12 years, indicates that low-income children have higher obesity rates than do wealthier children.<sup>19</sup>

Parental education can serve as an indicator of socioeconomic status. In Rhode Island, children of parents with less education or lower income are more likely to be obese than children of parents with higher education or income. Of children in families with incomes below twice the poverty level, 17% are overweight and 28% are obese. This is similar to 18% and 28%, respectively, for the United States as a whole.

## **Disability**

While there has not been a significant change in the overall levels of obesity among RI youth between 2001 and 2004,<sup>20</sup> adolescents and children with disabilities displayed a 5% increase in the rate of obesity from baseline. Adolescents with disabilities (46%) also continue to demonstrate higher levels of obesity than their peers without disabilities (34%).

## **Geography**

RI communities with the highest proportions of obese children, ages 2–5 years, in WIC include Newport, Warwick and Central Falls. More than 27% of children participating in WIC in these communities are obese. Cranston (13%) and Woonsocket (13%) have the lowest proportions of obese children enrolled in WIC.<sup>21</sup>

## Rhode Island Target Groups for Obesity Interventions

Based on the Rhode Island data presented above, the Initiative for a Healthy Weight has identified the following groups as target groups for interventions:

- Low-income and racial and ethnic minority children and adolescents
- Low-income and racial and ethnic minority families
- Low-income and racial and ethnic minority women
- Men of all races, ethnicities and income levels

## Health Consequences

### Adults

Among adults, overweight and obesity increase the risk of developing cardiovascular disease, type 2 diabetes, and cancer—three of the ten leading causes of death in the United States.<sup>22,23</sup>

- Weight gains as small as 10–12 pounds increase the risk of developing cardiovascular disease,<sup>24,25</sup> including heart disease and stroke, which kills over 927,000 Americans each year.<sup>26</sup>
- Overweight increases the chances of developing type 2 diabetes seven-fold, and obesity makes developing diabetes 20 to 40 times more likely.<sup>27</sup> Type 2 diabetes is a major cause of early death, cardiovascular disease, blindness, kidney disease, and loss of limbs.
- Overweight women are at increased risk of cancer of the uterus, gallbladder, cervix, ovary, breast, endometrium, and colon. Overweight men are at higher risk of developing colorectal cancer and prostate cancer.<sup>28</sup>

In addition, overweight and obese adults are at increased risk of developing gallbladder disease, musculoskeletal disorders (arthritis, osteoporosis, and muscle and joint pain), and sleep apnea.<sup>29</sup>

As seen nationally, high blood pressure, high cholesterol, and diabetes are associated with weight status among RI adults (**Table 4**). Among RI adults, those who are overweight or obese are more likely to have high blood pressure, high blood cholesterol or diabetes than those who are normal weight.

**Table 4. Obesity-related disease of RI adults, ages 18 years or older, by weight status 2003<sup>1,2</sup>**

Weight status	% High blood pressure (95 CI)	% High cholesterol (95 CI)	% Diabetes (95 CI)
<b>Underweight /Normal weight</b>	18.5 (16.4–20.7)	25.7 (23.1–28.3)	3.3 (2.1–4.6)
<b>Overweight</b>	34.2 (31.3–37.1)	38.5 (35.4–41.7)	7.5 (6.1–9.0)
<b>Obese</b>	45.3 (41.1–49.6)	40.2 (35.8–44.5)	14.1 (11.3–17.0)

**Source:** RI BRFSS, 2003

<sup>1</sup> Weighted percentages and unweighted sample

<sup>2</sup> High blood pressure = ever told have high blood pressure, excludes high blood pressure during pregnancy; High cholesterol = ever told have high blood cholesterol; Diabetes = ever told have diabetes by healthcare provider, excludes diabetes during pregnancy.

## Children

The increases in overweight and obesity among children are extremely concerning due to the anticipated increases in associated health consequences.<sup>30,31</sup> Overweight during childhood and particularly adolescence is related to increased morbidity and mortality later in life. The health effects of overweight in US children include development of cardiovascular disease risk factors, diabetes, orthopedic problems, asthma, low self-esteem, sleep apnea, and adult obesity.

- An estimated 61% of overweight children, ages 5–10 years, already have at least one cardiovascular disease risk factor (high blood pressure or high cholesterol), and over 25% of overweight children have two or more risk factors.<sup>32</sup>
- Once considered rare, type 2 diabetes in children is on the rise and is directly linked to obesity. If current trends continue, CDC estimates that about one-third of all children and about one-half of Black and Hispanic children born in 2000 will develop type 2 diabetes.<sup>33,34</sup>
- In young children, excess weight can lead to orthopedic problems, such as pain, limited range of motion, and bowing and overgrowth of leg bones.<sup>35</sup>
- Prevalence of overweight is reported to be significantly higher in adolescents and children with moderate to severe asthma.<sup>36</sup>
- Overweight is associated with low self esteem in adolescents and children. Some children report increased rates of loneliness, sadness, and nervousness. Overweight adolescents and children also report negative assumptions made about them by others, including being inactive or lazy, being stronger and tougher than others, not having feelings, and being unclean.<sup>36</sup>
- Sleep apnea, the absence of breathing during sleep, occurs in about 7% of children with obesity.
- Overweight adolescents have a 70% chance of becoming overweight or obese adults.<sup>23</sup>



## Disparities in Health Consequences

Because of the devastating impact of obesity on health status, racial and ethnic differences in obesity trends are widening existing health disparities. Many obesity-related diseases, such as diabetes, cardiovascular disease, and cancer, are found at higher rates among racial and ethnic minority populations. These disparities in obesity-related health problems will only be worsened by the rise in overweight and obesity in these populations.

- Diabetes has been reported to occur at a rate of 16% to 26% in Hispanic and Black US adults, ages 45–74 years, compared with 12% in non-Hispanic Whites of the same age.<sup>37,38,39</sup>
- Among Mexican Americans, obesity and type 2 diabetes are both increasing, unlike other risk factors of cardiovascular disease, including smoking and blood pressure, which are declining.
- Among African Americans, the high prevalence of obesity and obesity-related conditions such as hypertension and type 2 diabetes, are factors reported to contribute to their high death rate from coronary heart disease.<sup>40,41</sup>
- African Americans are more likely to die of cancer than people of any other racial or ethnic group. Obesity appears to contribute to the higher risk of pancreatic cancer among Black Americans than among Whites, particularly for women.

## Economic Consequences

Overweight, obesity, and their associated health problems also have significant economic consequences. The costs of overweight and obesity are borne by individuals, businesses, and governments.

The total direct (preventive, diagnostic, and treatment services related to weight) and indirect (absenteeism, loss of future earnings due to premature death) cost of obesity in the United States has been estimated at \$117 billion annually<sup>42</sup> accounting for more than 5% of national health expenditures.<sup>43,44</sup> Most of this cost is attributable to type 2 diabetes, hypertension, and coronary heart disease (**Table 5**).<sup>45</sup> Medicare and Medicaid pay for half of this cost.<sup>43</sup>

**Table 5. Annual costs of obesity-related diseases**

Disease	Annual Cost
Cancer <sup>46</sup>	\$190 Billion*
Coronary Heart Disease <sup>47</sup>	\$142 Billion*
Obesity	\$117 Billion*
Diabetes <sup>48</sup>	\$132 Billion*
Stroke	\$57 Billion*
High Blood Pressure	\$60 Billion*
Osteoporosis <sup>49</sup>	\$17 Billion**

\* Estimates of annual direct + indirect costs.

\*\* Estimates direct costs only.

From 1979 to 1999, annual hospital costs for treating obesity-related diseases in children rose three-fold, from \$35 million to \$127 million.<sup>50</sup> Obesity increases inpatient and ambulatory healthcare costs by \$395 per person per year—more than smoking and problem drinking.

In Rhode Island, annual medical expenditures attributable to obesity are \$305 million (2003 dollars).<sup>43</sup>

## Long-Term Objectives to Prevent and Control Overweight and Obesity

CDC has identified the following two overarching goals for reducing the prevalence of overweight and obesity:

- Prevent excess weight gain among adults, adolescents, and children.
- Achieve and maintain healthy weight loss among adults.

To achieve these goals, IHW has identified the following long-term objectives for prevention and control of overweight and obesity in Rhode Island.

**Objective 1:**            **By 2012, decrease the projected rate of increase in the proportion of adults, ages 18 years or older, who are obese by 50% to 0.4% per year, resulting in a prevalence of 24%.**

2005 Baseline:      Projected rate of increase: 0.8% per year (Prevalence: 21%)

Data Source:        RI Behavioral Risk Factor Surveillance Survey

**Objective 2:**            **By 2012, decrease the projected rate of increase in the proportion of adults, ages 18 years or older, who are overweight by 50% to 0.2% per year, resulting in a prevalence of 39%.**

2005 Baseline:      Projected rate of increase: 0.4% per year (Prevalence: 38%)

Data Source:        RI Behavioral Risk Factor Surveillance Survey

**Objective 3:**            **By 2012, reduce the proportion of adolescents and children, ages 17 years or younger, who are obese by 50% to 12%.**

2003 Baseline:      24%

Data Source:        National Survey of Children's Health

**Objective 4:**            **By 2012, reduce the proportion of adolescents and children, ages 17 years or younger, who are overweight by 50% to 16%.**

2003 Baseline:      31%

Data Source:        National Survey of Children's Health

**Objective 5:**            **By 2012, reduce the proportion of children, ages 2–5 years, in the Women, Infants, and Children Supplemental Nutrition Program who are obese by 50% to 12%.**

2004 Baseline:      23%

Data Source:        RI Women, Infants, and Children Supplemental Nutrition Program

**Objective 6:**            **By 2012, reduce the proportion of children, ages 2–5 years, in the Women, Infants, and Children Supplemental Nutrition Program who are overweight by 50% to 10%.**

2004 Baseline:    19%

Data Source:      RI Women, Infants, and Children Supplemental Nutrition Program

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Section 5: **Intermediate Objectives**  
***Target Behaviors***

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## Underlying Cause of Obesity: Energy Imbalance

Overweight and obesity are the result of complex interactions between genetic, physiological, metabolic, behavioral, environmental, cultural, and socioeconomic influences; however, the rapid increase in rates of overweight and obesity over the last few decades has occurred too rapidly for genetic or physiologic mechanisms to be the primary cause. The emerging epidemic can be attributed to changes in eating habits and physical activity levels. These changes have resulted in an overall positive energy balance—more calories consumed than expended. In simplest terms, overeating and insufficient physical activity are the underlying causes of the obesity crisis in the United States and in Rhode Island.

Energy imbalance occurs when the amount of energy (commonly referred to as calories) consumed from food is greater than the amount of energy expended through physical activity and daily metabolic functions (**Figure 9**). If energy intake is greater than energy expenditure over a long period of time, weight gain will occur. Even small energy imbalances in consumption and expenditure over time can result in significant weight changes. For example, consuming one 12-ounce regular soda (approximately 150 calories) or walking 30 minutes each day can add or take off ten pounds of body weight per year, respectively.

**Figure 9. Energy Balance**



CDC has identified the following four behaviors as the most promising behavior change strategies for addressing energy imbalance:

1. Improved nutrition
2. Increased breastfeeding
3. Increased physical activity
4. Reduced screen time

For each of these four target behaviors, the Plan describes:

- Benefits of the behavior
- Relationship to obesity
- National recommendations
- Prevalence and trends
- Disparities
- Contributing factors and barriers
- Objectives

# 1. Improved Nutrition

## Benefits of Healthy Eating

Healthy eating behaviors are critical to achieving and maintaining a healthy weight and to achieving optimal health and wellness. A good diet is one that supplies sufficient calories each day to maintain a healthy weight and an adequate intake of key nutrients. Caloric needs depend on gender, height, weight, metabolism, and physical activity level. Individuals could use up their entire daily caloric allowance on a few high-calorie foods; but if they do this, they would not get the full range of vitamins and nutrients their bodies need to be healthy. A diet that provides energy from a wide variety of food sources without extra calories will enhance the health of most individuals. Healthy eating behaviors also lower an individual's risk of many chronic diseases, including heart disease, diabetes, some types of cancer, asthma, arthritis, and osteoporosis.

## Relationship to Obesity

Diets that provide excess calories (more than are burned in physical activity), too many energy-dense foods and beverages, and too few healthy foods and beverages contribute to energy imbalance, the underlying cause of overweight and obesity.

## National Recommendations

In 2005, the United States Department of Agriculture (USDA) and the Department of Health and Human Services (USDHHS) released the *2005 Dietary Guidelines for Americans* (Dietary Guidelines).<sup>51</sup> The Dietary Guidelines provide science-based advice to promote health and to reduce the risk of major chronic diseases through diet and physical activity (**Box 2**). In coordination with the development of the new Dietary Guidelines, USDA revised and updated the original Food Guide Pyramid, released in 1992, and created a new pyramid and website entitled MyPyramid.gov: *Steps to a Healthier You*. Together, these two tools encourage Americans to eat fewer calories, make wiser food choices, and be more physically active.

**Box 2. Key Recommendations from the *Dietary Guidelines for Americans 2005***

***Dietary Guidelines for Americans 2005***

**Key Recommendations**

- Meet recommended intakes within energy needs by adopting a balanced eating pattern.
- Eat a variety of nutrient-dense foods and beverages within and among the basic food groups. Choose foods that limit the intake of saturated and trans fats, cholesterol, added sugars, salt, and alcohol.
- Eat a sufficient amount of fruits and vegetables while staying within energy needs. Two cups of fruit and 2½ cups of vegetables per day are recommended for a reference 2,000-calorie intake, with higher or lower amounts depending on the calorie level.
- Choose a variety of fruits and vegetables each day. Select from all five vegetable subgroups (dark green, orange, legumes, starchy vegetables, and other vegetables) several times a week.
- Make half your grains whole. Eat three or more ounce-equivalents of whole-grain products per day, with the rest of the recommended grains coming from enriched or whole-grain products.
- Consume 3 cups per day of fat-free or low-fat milk or equivalent milk products.
- Consume less than 10% of calories from saturated fatty acids and less than 300 mg/day of cholesterol. Keep trans fatty acid consumption as low as possible.
- Keep total fat intake between 20–35% of calories, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts, and vegetable oils.
- Limit intake of fats and oils high in saturated and/or trans fatty acids, and choose products low in such fats and oils.
- Choose lean, low-fat, or fat-free meat, poultry, dry beans, and milk or milk products.

**The Problem: Too Many Calories and Unhealthy Diets**

Americans and Rhode Islanders are consuming too many calories, too many high-fat, high-sugar, energy-dense foods and beverages, and too few nutrient-rich foods that are low in energy density, like fruits and vegetables. The result is an energy imbalance and eventual weight gain. To restore energy balance, the number of calories consumed needs to be reduced and energy-dense foods and beverages need to be replaced with healthier foods that are lower in energy density.

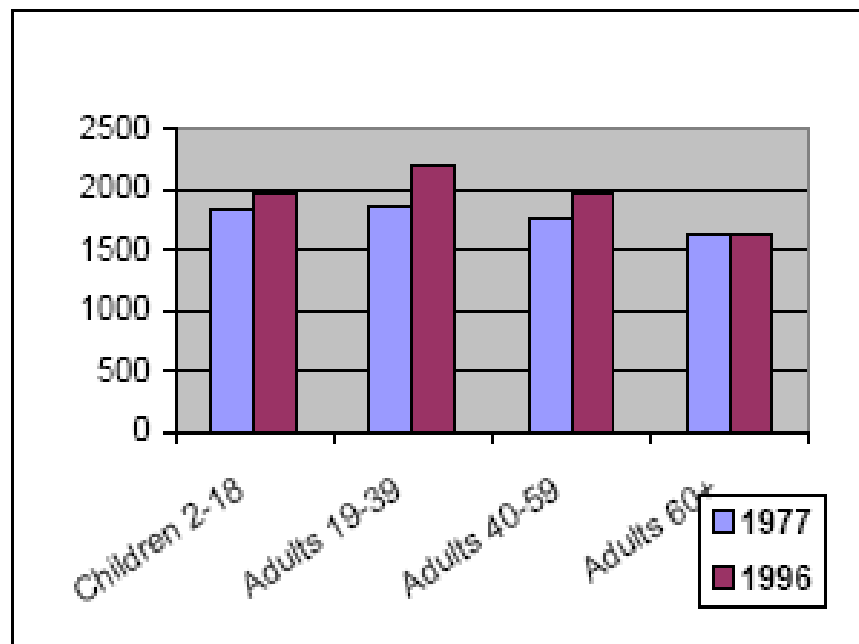
A food's **energy density**, the amount of energy per unit of food weight (calories per gram), is determined by its water, fiber and fat content. The higher the water and fiber content of a food, the lower its energy density. The higher the fat content of a food, the higher its energy density. Fruits and vegetables are very low in energy density, because they are low in fat and high in water content. In addition, fruits and vegetables are high in vitamins, minerals, fiber and cancer-fighting compounds known as phytochemicals. Fast foods, high-fat snack foods, and convenience foods are very high in energy density. Eating too many energy-dense foods and too few healthy foods that are low in energy density results in excessive caloric intake.



## Too Many Calories

Americans are consuming too many calories, i.e., more than they are using in physical activity. According to national surveys, men consumed 168 more calories on average per day in 2000 than in 1971, and women consumed 335 more calories per day in 2000 than in 1971.<sup>52</sup> Calorie increases have been more dramatic in younger adults, than older adults (**Figure 10**). Children, ages 2–18 years, consumed an average of 118 more calories per day in 1996 than they did in 1977 (**Figure 10**).<sup>53</sup> An extra 118 calories per day, if not compensated for through increased physical activity, translates into an average of 12 pounds of weight gain per year.

**Figure 10. Average daily caloric intake of US children and adults, ages 2–60+ years, 1977 and 1996**



**Source:** National Food Consumption Survey (1977–1978); Continuing Surveys of Food Intake by Individuals (1994–1996)

## Unhealthy Foods

Only 12% of Americans eat a healthy diet consistent with federal nutrition recommendations. The typical American diet is too high in saturated and trans fat, salt, and refined sugars and too low in fruits, vegetables, whole grains, calcium, and fiber.<sup>54</sup>

Among children, only 2% of school-aged children consume the recommended daily number of servings from all five major food groups.<sup>55</sup> This type of unbalanced eating leads to lowered intakes of nutrients critical for growth, cognitive functioning, and chronic disease prevention.

Over the past thirty years, Americans have increased their consumption of energy dense, nutrient-poor foods and beverages such as fast foods, high-fat snack and convenience foods, and sugar sweetened beverages and have continued to consume inadequate amounts of healthier foods, such as fruits and vegetables, that are low in energy density.

## Contributing Factors and Barriers

There are many factors contributing to the high-calorie, energy-dense eating patterns that Americans have adopted including: societal changes that increased demand for more convenient meals and snacks; more meals and foods eaten away from home; larger portion sizes; aggressive marketing of unhealthy foods and beverages to children; inconsistent and confusing messages and unhealthy nutrition environments in schools, childcare centers, communities and worksites. Individual level factors that have contributed to these unhealthy eating patterns include limited financial resources and a lack of knowledge, skills, awareness, motivation and confidence to make healthier choices.

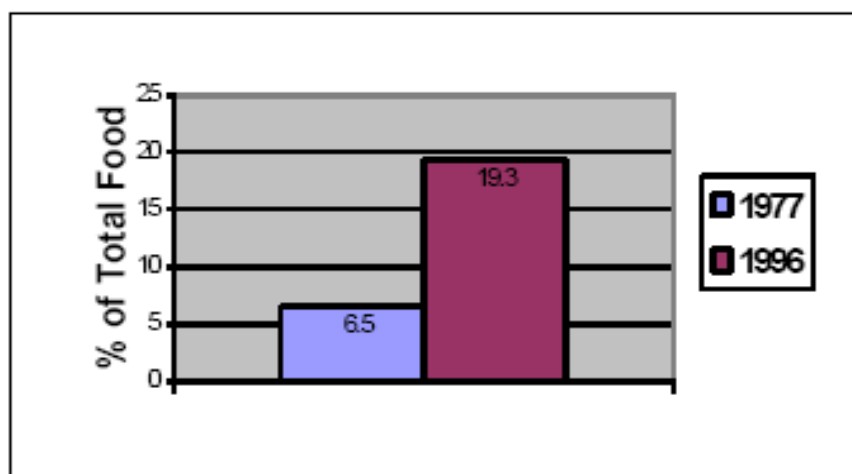
### **Societal Changes**

Over the last four decades, there have been dramatic changes in the way families live their lives that have contributed to the obesity crisis. Women's participation in the workforce increased from 36% in 1960 to 58% in 2000.<sup>56</sup> This increase, together with economic necessity, resulted in more families with both parents working outside of the home and less time for parents, guardians or caregivers to prepare nutritious home-cooked meals. Americans searched for quicker, more convenient ways of feeding their families and found them in away-from-home foods and convenience and snack foods.<sup>57</sup>

#### More Away-From-Home Foods

Since time for cooking is scarce and there are many inexpensive, affordable ways to eat on the run, Americans now eat significantly more food away-from-home, a trend that is expected to continue. In 1970, Americans spent one-third of their food dollars on food away from home; this amount grew to 39% in 1980, 45% in 1990, and 47% in 2001. Over the past two decades, meals and snacks eaten away from home increased by more than 75%, from 16% of all meals and snacks in 1977–78 to 27% in 1995. During the same period of time, the number of fast food restaurants more than doubled.<sup>58</sup> Fast foods were, by far, the most common source of meals away from home, accounting for 43% of all meals away from home.<sup>59,60,61</sup> According to the National Food Consumption Survey and Continuing Surveys of Food Intake by Individuals, food consumed by children in restaurants and fast food outlets tripled between 1977–1978 and 1994–1996 (**Figure 11**).

**Figure 11. Food consumed by US children in restaurants and fast food outlets, 1977 and 1996**



**Source:** National Food Consumption Survey, 1977–1978; Continuing Surveys of Food Intake by Individuals, 1994–1996

Away-from-home foods are more energy-dense and contain more fats and sugars than meals prepared at home. Many popular table service restaurant meals now provide 1000 to 2000 calories per meal,<sup>62</sup> an amount that is equivalent to 35–100% of a full day's energy (calorie) requirement for most adults.<sup>63</sup>

Meals eaten away-from-home also provide very few fruits and vegetables, with the average meal providing less than half a serving of fruit and just over one serving of vegetables.<sup>64</sup> At nearly one-half of the restaurant chains surveyed in a recent study, French fries were the only vegetable side dish on children's menus.<sup>65</sup> Another problem with away-from-home food and meals is the fact that there is limited information about the nutritional content of these foods and meals, making it easy for individuals to consume an excessive amount of calories and fat without realizing they are doing so.<sup>66</sup>

#### More Convenience and Snack Foods

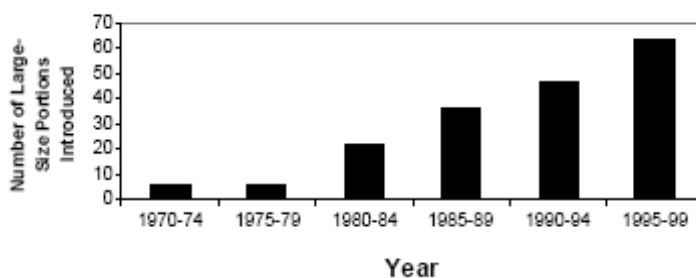
The new demand for quick and easy-to-prepare food was met by the food industry with an ever increasing variety of prepackaged convenience foods. Over the last 30 years, production, purchase, and consumption of these foods and snacks increased dramatically. Snack food consumption (e.g., cookies, chips, crackers and popcorn) roughly tripled over the last three decades. Almost one-quarter of children's and adolescent's daily calories can come from these energy-dense convenience and snack foods.<sup>67,68,69</sup>

#### **Larger Portion Sizes**

Over the last 30 years, portion sizes have increased in every conceivable venue—from servings in national restaurant chains, to recipes in cookbooks, to the sizes of cup holders in automobiles. Many restaurants, fast food outlets, convenience stores, and even movie theaters now provide food in larger-than-standard, “super-sized” serving sizes. Current portions consistently exceed those offered in the past and are 2–8 times larger than recommended sizes. Between 1977 and 1996, food portion sizes increased both inside and outside the home for all food categories except pizza, with the largest portion sizes at fast food establishments (**Figure 12**).<sup>70</sup> Larger portion sizes contribute to the obesity crisis not only by providing more

calories, but also because studies have shown that when people are served more food, they eat more food.<sup>71,72,73</sup>

**Figure 12. Introduction of New, Larger Portions, 1970–1999**



**Source:** Young, LR, et al., 2002

### **Aggressive Marketing of Junk Food to Children**

Another trend contributing to the obesity crisis is the aggressive marketing of unhealthy foods and beverages to children. Children are now the target of intense and aggressive food marketing and advertising efforts,<sup>74,75,76,77,78</sup> with food and beverage advertisers collectively spending \$10–12 billion annually to reach children.<sup>79</sup> Multiple techniques and channels are used to reach children to foster brand loyalty and encourage product use beginning when they are toddlers. These food marketing channels include TV advertising, in-school marketing, product placements, kids clubs, the Internet, branded toys, and youth-targeted promotions. Young children have few defenses against such ads, and older children and teens can be manipulated and misled by them.<sup>80</sup> In particular, advertising exploits children under eight years of age because they do not understand the difference between information and advertising.<sup>81</sup> A recent joint report by the Food and Agriculture Organization and WHO confirmed that the evidence is strong enough to suggest a probable causal relationship between the heavy marketing of fast food outlets and energy-dense, micronutrient-poor foods and beverages to children and an increased risk of obesity.<sup>82</sup>

### **Unhealthy Nutrition Environments**

The lack of access to affordable, healthy foods and beverages and increased access to unhealthy foods and beverages in schools, communities, worksites, and childcare settings have also contributed to the poor nutritional quality of diets.

#### School Nutrition Environments

The types of foods and beverages available on the school campus, before, during, and after school, influence children's dietary behaviors. While USDA-funded school breakfast and lunch programs must comply with USDA requirements, most schools make high-calorie, low-nutrient "competitive" foods and beverages available to students outside of the school meal programs. Nearly 98% of US high schools, 74% of middle schools, and 43% of elementary schools have vending machines or school stores selling foods of low nutritional value.<sup>83</sup> Competitive foods are also served or sold in a variety of other school settings, including a la carte lines, snack bars, school fundraisers (e.g., candy), bake sales, and classroom parties, after-school sports, and fundraisers. A recent study found that 75% of beverage options and 85% of snack options were of "poor nutritional quality".<sup>84</sup> The most prevalent beverage and snack options are soda, imitation fruit drinks, candy, chips, cookies,

and snack cakes. Several recent studies have found that the availability of these foods in a la carte lines and vending machines discourages the consumption of more nutritious foods.<sup>85</sup> Fifth graders who entered a school offering a la carte foods and snack bars significantly decreased their consumption of fruit (by 33%), vegetables (by 42%), and milk (by 35%) from the levels consumed in fourth grade.<sup>86</sup>

Not only do schools sell non-nutritious foods and beverages, they also promote their consumption through vending machines, soft drink “pouring rights” agreements, branded fast food, fundraisers, direct advertising (e.g., food and beverage ads in schools), and indirect advertising (e.g., corporate-sponsored educational programs, sports sponsorships, contests and coupons, and advertisements on Channel 1).<sup>87,88,89</sup> Even teachers who want to recognize accomplishments by their students may add to this type of promotion by rewarding students with candy and soda.

The irony is that schools that sell competitive foods may not be helping their overall financial situation. Competitive foods drive down participation in school meal programs, causing schools to lose potential revenues from federal meal reimbursements for participation in the National School Meals Programs. A major survey of school vending contracts estimated annual revenues from vending machines to be approximately \$54 million; however, the total loss of revenues from declining meal sales (due to increased vending machine sales) was much greater, yielding a net loss of \$60 million to the schools. Replacing unhealthy vending items with healthier items will not only improve the nutritional quality of the food served to students, but has also been shown to increase school revenues.<sup>90 91 92 93</sup>

Another unhealthy aspect of school nutrition environments is the inadequate amount of time students are given for lunch and breakfast. More than 25% of middle school students report that they do not have enough time to eat.<sup>94</sup> This lack of time has also been cited as one of the main reasons students do not participate in National School Meal Programs.

### Community Nutrition Environments

Limited access to healthy foods, such as fruits and vegetables, in low-income communities makes it difficult for residents to make healthy food choices. Likewise, increased access to energy dense, fast food and high-fat snack and convenience foods encourages and results in over-consumption of these unhealthy foods.<sup>95</sup>

Over the past few decades, the availability and affordability of energy-dense foods in low-income and racially and ethnically diverse neighborhoods has increased and access to affordable healthy foods has decreased<sup>96</sup> for a variety of reasons: relocation to the suburbs of supermarkets that provide healthy foods at affordable prices; lack of transportation to supermarkets or larger food outlets; increased number of convenience stores (limited selections of healthy foods at higher prices) in low-income neighborhoods<sup>92</sup>; and the presence of a proportionately greater number of fast food outlets in low-income neighborhoods.<sup>83</sup>

### Worksite Nutrition Environments

Since most people spend a large portion of their day at work, lack of access to healthy foods and beverages at the worksite has a significant impact on overall dietary intake. For many employees, it is nearly impossible to avoid unhealthy eating at work, where vending machines are stocked with energy-dense, high-calorie foods, cafeteria menus have few healthy options, and the closest lunch venue is a fast food restaurant.

### Childcare Nutrition Environments

Since so many children under the age of five spend the majority of their day in childcare, the nutritional quality of foods and beverages served in childcare centers has a significant impact on children's dietary status. Food habits acquired in early childhood track into later childhood and adulthood.<sup>97</sup> Unfortunately, few uniform standards currently apply to nutrition in childcare centers.

Evaluation of menus and meals served in childcare centers and family childcare homes show that the combinations and quantities of food prepared for children often fail to supply the recommended share of calories and key nutrients such as iron, zinc, calcium, and magnesium.<sup>98,99</sup>

### **Lack of Knowledge, Skills, and Confidence**

Behavioral theories suggest that in order to change dietary behaviors, individuals need to acquire knowledge, skills and confidence in their ability to make the desired behavior changes. In Rhode Island, there are not enough culturally and linguistically appropriate nutrition education and behavior change programs available to help people change their eating behaviors. These programs are needed, and could be offered, in a variety of settings including schools, communities, childcare centers, worksites and healthcare facilities.

### **Inconsistent and Confusing Messages**

Inconsistent and confusing messages regarding nutrition recommendations and achieving and maintaining a healthy weight make it difficult for individuals to adopt and implement healthy eating behaviors. There is a need for the development and dissemination of clear and consistent messages across all settings—healthcare, childcare, schools, communities, worksites and the media—to ensure that individuals and families are clear about the changes they need to make in order to adopt lifelong healthy eating and physical activity behaviors.

## Targeted Nutrition Behaviors

The following three nutritional behavior changes hold the greatest promise for helping Rhode Islanders reduce excessive caloric intake by improving the nutritional quality of their diets:

- a. Increased consumption of fruits and vegetables
- b. Decreased consumption of sugar-sweetened beverages
- c. Decreased consumption of fast food

### 1a. Increased Consumption of Fruits and Vegetables

#### **Benefits of Fruits and Vegetables**

A growing body of research has demonstrated that fruits and vegetables are critical to promoting good health and should be the foundation of a healthy diet. Fruits and vegetables are a natural source of energy and contain essential vitamins, minerals, fiber, and disease-fighting phytochemicals. Research has also shown that eating plenty of fruits and vegetables each day can help reduce the risk of heart disease, high blood pressure, type 2 diabetes, and certain forms of cancer.<sup>100</sup>

#### **Relationship to Obesity**

Because they are low in calories and high in fiber, fruits and vegetables can individuals achieve and maintain a healthy weight. Higher body weights are associated with lower fruit and vegetable intakes, and lower body weights are associated with higher fruit and vegetable intakes. Replacing energy-dense foods with fruits and vegetables will increase feelings of satiety (fullness) and decrease the total number of calories consumed.<sup>101,102,103,104,105,106</sup> It is important to note that fruits and vegetables need to replace energy dense foods, not simply added to an individual's diet.<sup>107,108</sup> For example, snacks such as chips and cookies should be replaced with a whole apple or mini carrots, or a turkey sandwich should have less turkey and more lettuce, tomato, or other vegetables added.

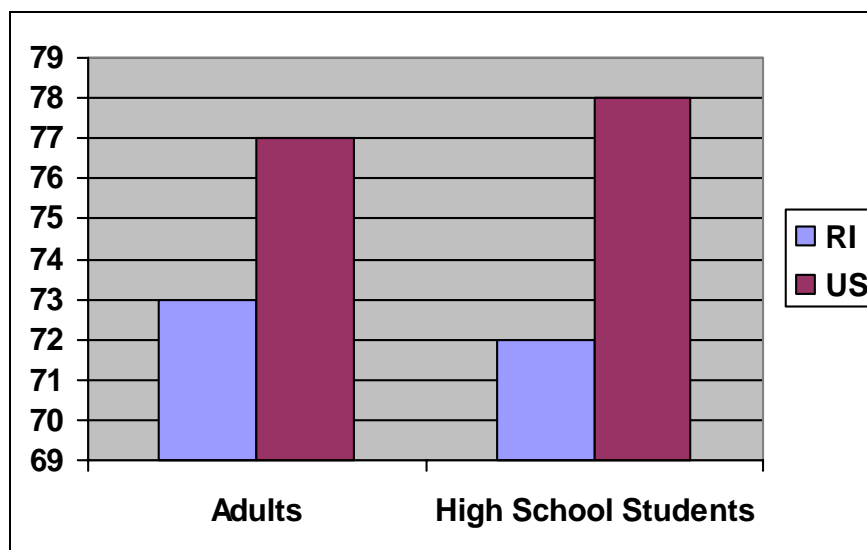
#### **National Recommendations**

Increased fruit and vegetable intake is recommended by the Centers for Disease Control, the National Cancer Institute, the American Dietetic Association,<sup>109</sup> the Institute of Medicine, and the Dietary Guidelines for Americans 2005.<sup>51</sup> The Dietary Guidelines recommend consuming a colorful variety of fruits and vegetables and encourage daily consumption of 2½–6½ cups, or 5–13 servings of fruits and vegetables per day. In order to meet this recommendation, most Americans need to triple their current intake.

#### **The Problem: Not Enough Fruits and Vegetables**

Very few people report that they eat five or more servings of fruits and vegetables each day and the majority are not even coming close to meeting the Dietary Guidelines. In 2003, 77% of US adults, 73% of RI adults, 78% of US high school students,<sup>110</sup> and 72% of RI high school students reported that they ate less than the five recommended servings of fruits and vegetables per day (**Figure 13**).<sup>100</sup>

**Figure 13. Consumption of <5 servings of fruits and vegetables per day among US and RI adults and high school students, 2003**



**Source:** BRFSS, 2003; YRBS, 2003

In Rhode Island, 25% of elementary and middle school students, and 30% of high school students, report not eating any fruits or vegetables on the previous day, which is far from the goal of at least five servings per day. Only 25% of high school students reported eating five or more servings of fruits and vegetables per day in the previous week.

Even very young children are not meeting the Dietary Guidelines for fruits and vegetables. A national survey found that up to one-third of children, ages 7–24 months, ate no vegetables or fruits on the previous day and children, ages 3–5 years, did not even come close to meeting recommended guidelines.<sup>97</sup> For children, ages 15–18 months, the vegetable most commonly eaten was French fries, and more than 25% of children, ages 19–24 months, ate French fries or fried potatoes on any given day.

### **Disparities in Fruit and Vegetable Consumption**

In Rhode Island, there are disparities in fruit and vegetable consumption by gender, education, age, and income:

- Men are less likely to eat five fruits and vegetables a day (25%) compared to women (32%).
- People with less than a high school education (24%) are less likely to eat five or more servings of fruits and vegetables per day than those with a college education (32%).
- Younger people are less likely to eat five or more fruits and vegetables per day than older adults.
- Children who receive free- or reduced-price lunches (low-income qualified) are less likely to eat five or more fruits and vegetables a day than other children.

However, adults with different levels of income, or of different racial and ethnic backgrounds, do not differ from one another in fruit and vegetable consumption.



## 1b. Decreased Consumption of Sugar-Sweetened Beverages

### Benefits of Decreasing Sugar-Sweetened Beverages

Soft drinks provide large amounts of refined sugars and calories to a nation of people already not meeting the Dietary Guidelines and experiencing an epidemic of obesity. In adolescents and children, soft drinks are replacing milk, placing them at increased risk of developing osteoporosis<sup>111</sup> and bone fractures.<sup>112,113 114</sup> Heavy soft drink consumption is also associated with lower intake of numerous vitamins, minerals, and dietary fiber and an increase in dental caries.<sup>115,116</sup> Reducing sugar-sweetened beverage or soft drink consumption will help achieve energy balance by decreasing the total number of calories consumed<sup>117,118,119</sup> and will improve the overall health of adolescents and children.

### Relationship to Obesity

Recently, researchers have confirmed that soft drinks contribute to the development of obesity,<sup>120,121,122,123</sup> and that each additional soft drink consumed increases a child's risk of becoming overweight by 60%.<sup>117</sup> There are two proposed theories to explain why this happens. The first is that sugar-sweetened beverages cause obesity because of their substantial contribution to caloric intake. The second theory is that sugar, consumed in the form of liquid, such as soda or alcohol, is more likely to result in weight gain because of the way it is metabolized. Regardless, recent studies provide strong evidence that excess calories from soft drinks are directly contributing to the epidemic of obesity and type 2 diabetes.<sup>124 125,126</sup> Several intervention studies have shown that decreasing consumption of sugar-sweetened beverages does, in fact, result in weight loss; however, more studies are needed.<sup>127,128</sup>

### National Recommendations

Decreases in consumption of sugar-sweetened beverages for adolescents and children are recommended by the Centers for Disease Control, the Institute of Medicine, the American Academy of Pediatrics, the American Dietetic Association, the American Medical Association's Council on Food and Nutrition, and the 2005 Dietary Guidelines for Americans.<sup>51</sup>

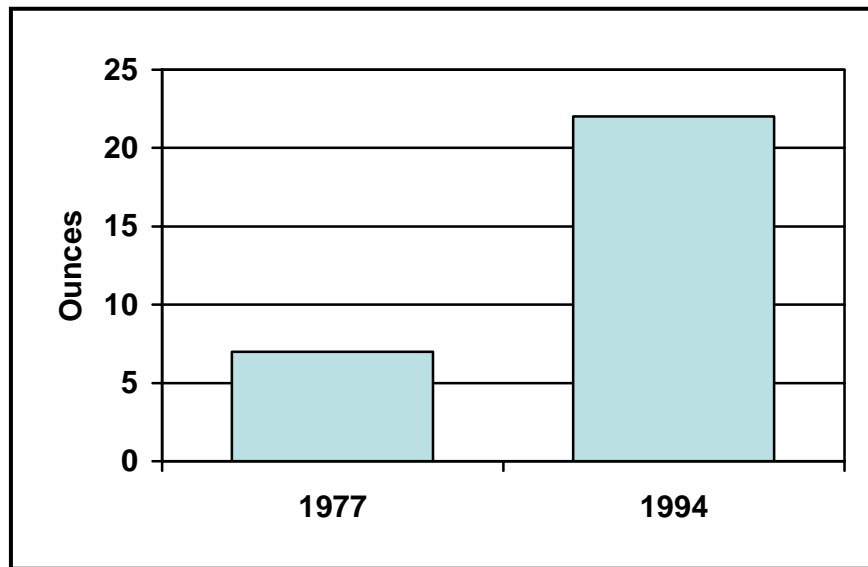
### The Problem: Too Many Sugar-Sweetened Beverages

Americans consume too much sugar, adding an excessive amount of nutrient-poor, empty calories to their daily diets. For the US population as a whole, added sugars or sweeteners account for 16% of their total daily caloric intake. Most of this sugar comes from sugary snack foods, drinks and desserts, as well as hidden sugars used in food preparation.

Carbonated soft drinks are now the number one source of added sugars in the American diet and account for 33% of total daily sugars. When noncarbonated soft drinks (fruit drinks, ice teas, etc.) are added in, soft drinks account for 43% of total daily sugars.<sup>129</sup> Soft drinks provide the average 12- to 19-year-old boy, with about 15 teaspoons of refined sugars a day and the average girl with about ten teaspoons a day. In Rhode Island, 63% of households report having sugar-sweetened soft drinks in their homes.

American consumption of soft drinks exploded over the last three decades, increasing by 300% between 1977 and 1998. Soft drink consumption more than tripled among adolescents between 1977 and 1994, rising from seven to 22 ounces per day (**Figure 14**).<sup>130</sup>

**Figure 14. Consumption of soft drinks among US adolescents, 1977 and 1994**



**Source:** Guthrie, et al, 2000

Most children start drinking soft drinks at a young age and their consumption increases through young adulthood. A national study reported that infants as young as seven months of age are consuming soft drinks<sup>97</sup>. Twenty percent of children, ages 1–2 years, consume soft drinks, drinking an average of seven ounces per day. Almost half of all children, ages 6–11 years, drink soft drinks, with the average child consuming 15 ounces per day. By the time they are 14 years of age, 32% of adolescent girls and 52% of adolescent boys are consuming three or more eight-ounce servings of soft drinks daily or the equivalent of 20 teaspoons of sugar (300 calories).<sup>131,132</sup>

### **Disparities in Sugar-Sweetened Beverage Consumption**

In Rhode Island, having soda available at home is not significantly different by weight status, but the same groups that report higher fast food consumption (i.e., males, Hispanic and non-Hispanic Blacks, people with lower education and/or income) also report having soda at home.

## 1c. Decreased Consumption of Fast Food

### Benefits of Decreasing Fast Food

Americans are consuming excessive amounts of fat, especially in the form of added fat from fast food and high-fat convenience and snack foods. Reducing fat intake will lower the energy density of diets, increase feelings of satiety (fullness), and decrease the total number of calories consumed.<sup>133,134,135</sup> A review of the results from 28 clinical trials confirmed that reducing fat consumption will, in fact, result in decreased caloric intake and eventual weight loss.

### Relationship to Obesity

Weight gain and higher BMIs are associated with fast food consumption.<sup>136,137</sup> When people eat fast food, they consume more calories, fat, carbohydrates, added sugars and sugar-sweetened beverages, and less fiber, milk, fruits and non-starchy vegetables. During a 15-year study, adults who ate fast food more than twice a week gained ten pounds more than those who ate fast food less than once a week.<sup>135,136</sup>

### National Recommendations

Decreases in fat consumption, especially the consumption of fast food and high-fat convenience and snack foods are recommended by Institute of Medicine, the American Academy of Pediatrics, the National Heart, Lung, and Blood Institute,<sup>138</sup> the American Cancer Society, and the 2005 Dietary Guidelines for Americans.<sup>51</sup>

The Dietary Guidelines recommend a total fat intake that is 20–35% of total daily calories for adults and 25–35% of total daily calories for adolescents and children, ages 2–18 years. The Dietary Guidelines also recommend that no more than 10% of calories come from saturated fat and that the consumption of trans fats, found in most processed foods, fried foods, and fast foods be kept to a minimum.

### The Problem: Excessive Fat Intake and Too Much Fast Food

Americans of all age groups exceed recommended daily total fat intakes. More than 80% of adolescents and children eat too much total fat (i.e., more than 30% of total calories), and more than 90% eat too much saturated fat (i.e., more than 10% of total calories).<sup>139</sup> Some of this high-fat intake is the result of too-frequent snacking; 98% of 6 to 18-year-old students report having at least three snacks per day; and more than 50% report five or more snacks each day.<sup>107</sup> Fast food consumption has also increased in recent years, contributing to excessive fat intake. In the United States, spending on fast food increased dramatically from \$6 billion to \$110 billion over the last 30 years.<sup>140</sup>

Fast food consumption quadrupled for adults over the past three decades and quintupled for children.<sup>57</sup> In the last 20 years, the percentage of total calories from fast food increased from 3% to 12%.<sup>141</sup> Fast foods now provide between 15-23% of total calories consumed by adults, ages 18–39 years, 12% of total calories for adults, ages 40–49 years, and 10% of total calories for children. In Rhode Island, 29% of families report eating at fast food restaurants once a week, and 21% report eating at fast food restaurants more than once a week.

### Disparities in Fast Food Consumption

Eating fast food more than once a week is more frequently reported by RI men than RI women, by Rhode Islanders with lower education and income, and by Hispanic and non-Hispanic Black Rhode Islanders compared with non-Hispanic White Rhode Islanders. More obese Rhode Islanders (28%) report eating fast food more than once a week than those who are overweight (21%) and normal weight (18%).

## Rhode Island's Nutrition Objectives

**Objective 1:**            **Increase the proportion of adults, adolescents, and children who reduce excessive caloric intake by improving the nutritional quality of their diets.**

Objective 1a:        By 2010, increase to 35% the proportion of adults, adolescents, and children who eat five or more servings of fruits and vegetables per day.

Objective 1b:        By 2010, decrease to eight ounces or less the average daily consumption of sugar-sweetened beverages among adolescents and children, ages 17 years or younger.

Objective 1c:        By 2010, decrease to 40% the proportion of adolescents and children, ages 17 years or younger, who report eating at a fast food restaurant once per week or more.

## 2. Increased Breastfeeding

### Benefits of Breastfeeding

Breastfeeding provides important benefits for children, mothers, and society as a whole. For children, breastfeeding supports optimal development and protects against acute and chronic illness. For mothers, breastfeeding helps with recovery from pregnancy and childbirth and provides lifelong health advantages. For society, breastfeeding provides a range of economic and environmental rewards.

#### Benefits for Children

Breastfeeding offers advantages for children that cannot be duplicated by any other form of feeding. Compared with children who are fed infant formula, those who are breastfed are healthier and have fewer symptoms and shorter illnesses when they do get sick. Breastfed children:

- Have a lower incidence of sudden infant death syndrome (SIDS); are less likely to suffer from infectious illnesses and their symptoms (e.g., diarrhea, ear infections, respiratory tract infections, meningitis).<sup>142,143,144,145,146</sup>
- Have a lower risk of the two most common inflammatory bowel diseases (Crohn's disease, ulcerative colitis).
- Suffer less often from some forms of cancer (e.g., Hodgkin's disease, childhood leukemia).<sup>147</sup>
- Have a lower risk of juvenile onset diabetes, if they have a family history of the disease and are breastfed exclusively for at least four months.
- Are significantly protected against asthma and eczema, if at risk of allergic disorders and exclusively breastfed for at least four months.
- Score higher on cognitive and IQ tests at school age, and on tests of visual acuity.
- Have fewer cavities and are less likely to require braces.

Breastfeeding provides benefits not just for full-term infants but also for premature and low birth weight infants. Compared with premature infants who receive breast milk, those who receive formula have future IQs that are 8–15 points lower. For premature infants, breast milk significantly shortens length of hospital stay, reduces hospital costs, hastens brainstem maturation, and reduces the risk of life-threatening diseases of the gastrointestinal system and other infectious diseases.<sup>148</sup>

#### Benefits for Mothers

Breastfeeding offers a range of benefits for mothers:

- Women who have breastfed are less likely to develop ovarian and premenopausal breast cancers.<sup>149,150,151,152,153,154,155,156</sup> The more months a woman spends breastfeeding, the greater the beneficial effect.
- Breastfeeding also reduces the risk of hip fractures and osteoporosis.<sup>157,158,159</sup>
- Breastfeeding mothers experience a more rapid recovery after childbirth<sup>160</sup> and a reduced risk of postpartum bleeding.<sup>161</sup>
- Mothers who breastfeed are more likely to return to their prepregnancy weight after three months than are mothers who formula feed.

- Exclusive breastfeeding for the first six months postpartum, in the absence of menses, is 98% effective in preventing pregnancy.<sup>162</sup>
- Breastfeeding mothers are reported to be more confident and less anxious than bottle-feeding mothers.<sup>163</sup>
- Breastfeeding provides psychological benefits for both the mother and infant by contributing to feelings of attachment between a mother and her child.

### Community and Economic Benefits

Breastfeeding provides economic benefits for society, families, and employers. These benefits include:

- The potential for decreased annual healthcare costs of \$3.6 billion in the United States; decreased costs for public health programs such as WIC.<sup>164,165,166</sup>
- Decreased parental employee absenteeism and the associated loss of family income.
- More time for attention to siblings and other family matters as a result of decreased infant illness.
- Decreased environmental burden for disposal of formula cans and bottles; and decreased energy demands for production and transport of artificial feeding products.
- Employer savings of \$3 for every \$1 invested in breastfeeding support.<sup>167,168</sup>

### Relationship to Obesity

There is a growing body of evidence that breastfeeding is associated with a lower rate of weight gain in childhood and a reduced risk of obesity.<sup>169,170,171,172,173,174,175,176,177,178</sup> The protective effect of breastfeeding on obesity is dose-related, in that increasing amounts of breastfeeding and longer durations of breastfeeding are associated with progressively reduced risks of overweight and obesity. What this means is that the longer and the more a mother breastfeeds her infant, the greater the protection against the child becoming obese.<sup>179</sup> **(Table 6).**

**Table 6. Dose Response of Breastfeeding and Risk of Obesity**

Dose Response	Risk of Obesity
Never breastfed	4.5%
Average breastfed	2.8%
2 months breastfed	3.8%
3–5 months breastfed	2.3%
6–12months breastfed	1.7%
>12 months breastfed	0.8%

**Source:** Von Kries, et al, 1999

## National Recommendations

Breastfeeding is universally endorsed by the world's health and scientific organizations as the best way of feeding infants.<sup>180,181</sup> In its *2005 Policy Statement on Breastfeeding and the Use of Human Milk*,<sup>182</sup> the American Academy of Pediatrics strengthened its 1997 recommendations and now recommends exclusive breastfeeding for the first six months of life, continued breastfeeding while adding weaning foods for the next six months, and continued breastfeeding for as long as mother and child wish.

Exclusive breastfeeding is defined as an infant's consumption of human milk with no supplementation of any type (no water, no juice, no non-human milk, and no foods) except for vitamins, minerals, and medications. Exclusive breastfeeding has been shown to provide improved protection against many diseases and to increase the likelihood of continued breastfeeding for at least the first year of life.

### The Problem: Low Breastfeeding Initiation, Duration, and Exclusivity Rates

Despite the well-recognized benefits of breastfeeding, breastfeeding rates are well below the Healthy People 2010 recommendations and especially low for exclusive breastfeeding. RI rates for ever breastfeeding, breastfeeding at six months, and breastfeeding at 12 months fall below the national rates and well below Healthy People 2010 targets (**Table 7**).<sup>183</sup>

**Table 7. Breastfeeding among US and RI mothers, compared to Healthy People 2010 Targets, 2004**

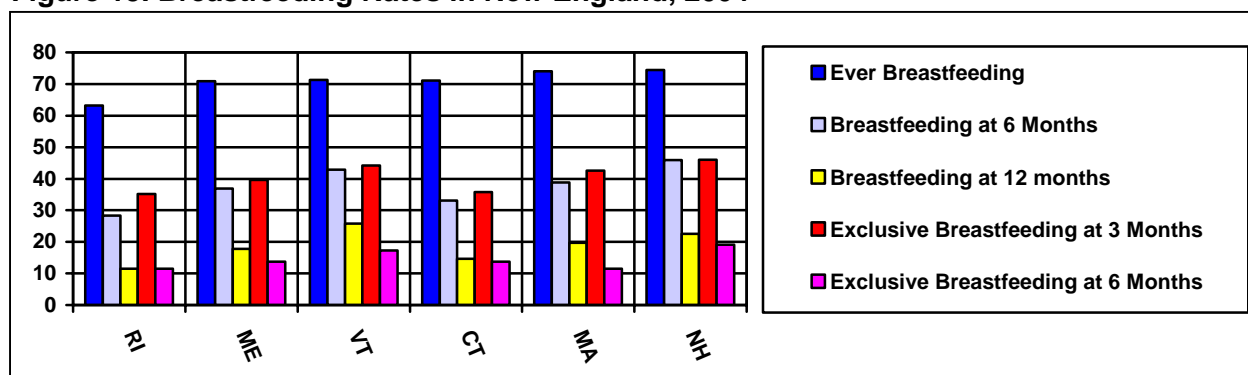
	Ever Breastfeeding	Breastfeeding at six months	Breastfeeding at 12 months	Exclusive Breastfeeding at three months	Exclusive Breastfeeding at six months
<b>Rhode Island</b>	63%	28%	12%	35%	12%
<b>United States</b>	70%	36%	18%	39%	14%
<b>Healthy People 2010 Target</b>	75%	50%	25%	N/A	N/A

**Source:** National Immunization Survey, 2004

Although breastfeeding initiation rates have steadily increased nationally and in Rhode Island since 1990, exclusive breastfeeding initiation rates have shown little or no increase over that same period of time. Similarly, six months after birth, the proportion of infants who are exclusively breastfed has increased at a much slower rate than that of infants who receive mixed feedings.

Although breastfeeding rates in New England are higher than in other regions of the country, Rhode Island has the lowest rates in the region, which may help explain the extremely high prevalence of obesity in preschoolers in WIC (**Figure 15**).

**Figure 15. Breastfeeding Rates in New England, 2004**



**Source:** National Immunization Survey, 2004

## Disparities in Breastfeeding

Nationally, mothers who are younger, have lower incomes or lower education, are unmarried, or are participating in WIC are at higher risk of not breastfeeding. Non-Hispanic Black women are much less likely to initiate breastfeeding (54%) compared with non-Hispanic White (74%) or Hispanic women (79%). In Rhode Island, however, non-Hispanic Black women report initiating breastfeeding (68%) at about the same proportion as non-Hispanic White women (67%). Non-Hispanic women (64%), regardless of race, are less likely to breastfeed than Hispanic women (82%).

When asked separately about exclusive breastfeeding and feeding a combination of breast milk and formula, over 60% of non-Hispanic White women report exclusive breastfeeding compared to 47% of Black women and 50% of Hispanic women. Only 4% of non-Hispanic White women report a combination of breast milk and formula compared to 15% of non-Hispanic Black and 26% of Hispanic women. Therefore, RI women demonstrate a similar disparity picture to US women with regard to exclusive breastfeeding, but the racial disparity found throughout the United States with regard to breastfeeding initiation is not seen in Rhode Island.

## Contributing Factors and Barriers

Obstacles to initiation and continuation of breastfeeding include:

- Outdated hospital policies and practices
- Lack of professional support
- Lack of peer support
- Maternal employment and unsupportive work environments
- The high cost of breast pumps
- Inadequate insurance coverage
- Lack of education about breastfeeding in schools
- Lack of support for breastfeeding in childcare facilities
- Commercial promotion of infant formula
- Limited public acceptance of breastfeeding



## **Outdated Hospital Policies and Practices**

Some hospitals still employ outdated maternity care policies and practices (e.g. not having a written breastfeeding policy, not helping mothers initiate breastfeeding soon enough after birth, separating mothers from infants, lack of a rooming-in policy, giving infants food or drink other than breastmilk, using pacifiers, etc.) that can prevent successful breastfeeding experiences. Research has shown that experiences with breastfeeding in the first hours and days of life significantly influence an infant's later feeding behaviors. Since breastfeeding initiation is extremely time-sensitive, the lack of supportive policies and practices throughout the hospital stay can present a significant barrier to breastfeeding initiation and duration.

## **Lack of Professional Support**

Lack of support from professionals has been identified as a major barrier to breastfeeding, especially among African American women.<sup>184,185</sup> Most new mothers do not have direct, personal knowledge of breastfeeding and many cannot rely on family members for consistent, accurate information and guidance about infant feeding. Although they may have a general understanding of the benefits of breastfeeding, some women lack access to information on how to breastfeed and how to overcome any barriers.<sup>186</sup>

Healthcare providers have a substantial influence on a woman's decision to breastfeed and on her ability and desire to continue breastfeeding,<sup>187</sup> yet many lack the knowledge, skills and confidence to provide effective breastfeeding counseling and support.<sup>188 189</sup> Moreover, some believe that breastfeeding provides only modest benefits and that infant formula is a comparable alternative to breast milk.

All healthcare providers who interact with women of childbearing age require a basic understanding of breastfeeding; need to recognize that breastfeeding is a normal and biologically important process that is critical to maternal and infant health and understand that the procedures they perform or the drugs they prescribe may directly or indirectly affect women's ability to breastfeed successfully. They also need in-depth knowledge and skills directly related to breastfeeding management. The fact that many health professional schools and continuing education programs do not provide the necessary training to acquire these skills presents a significant barrier to breastfeeding initiation and duration.

Currently in Rhode Island, 75 healthcare providers a year participate in training to become Certified Lactation Consultants. This training needs to be continued to ensure that all healthcare providers who come in contact with pregnant or breastfeeding women are trained in evidence-based breastfeeding counseling and support.

## **Lack of Peer Support in Communities**

Although there are some trained peer (breastfeeding) counselors in Rhode Island, this network of peer counselors is not large enough to address the needs of the high-risk populations in the state. Research has shown that women's social networks are highly influential in their decision-making processes and the presence or absence of these networks can be either barriers or supports for breastfeeding.<sup>190</sup> New mothers prefer to turn to other mothers, preferably peers from their own social groups, for advice about child rearing and infant feeding<sup>191</sup> and a lack of perceived social support has been found to predict breastfeeding failure.<sup>192</sup>

## **Maternal Employment and Unsupportive Work Environments**

Many mothers decide not to breastfeed or to wean early because they plan to return to work;<sup>193</sup> this is especially true for women who plan to return before six weeks postpartum.<sup>194</sup> One-third of mothers return to work within three months after giving birth and two-thirds return within six months.<sup>195</sup> Low-income women, among whom Black or African-American and Hispanic women are overrepresented, are more likely than their higher income counterparts to return to work earlier and to be engaged in jobs that make it challenging for them to continue breastfeeding.<sup>196</sup>

Working outside of the home is related to a shorter duration of breastfeeding especially in situations where employers and worksite environments are unsupportive of breastfeeding mothers.<sup>197</sup> Barriers identified in the workplace include a lack of flexibility in the work schedule for milk expression, lack of accommodations to pump or store breast milk, concerns about support from employers and colleagues, and real or perceived low milk supply.<sup>198,199,200</sup>

## **High Cost of Breast Pumps**

The expense of purchasing or renting an effective breast pump can discourage women from initiating breastfeeding in the hospital or continuing to breastfeed after they return to work or school. With a personal-use, double-setup electric breast pump costing between \$175 and \$320, buying or renting a pump is out of the economic reach of many women. For women who need a breast pump, lack of access can end hopes of breastfeeding their babies. Very few insurers cover the cost of breast pumps for women returning to work or school.

Women need breast pumps for a variety of reasons. A mother with a sick or premature infant in the Neonatal Intensive Care Unit needs a breast pump to provide milk for a baby who cannot nurse at the breast and to maintain her milk supply.<sup>201</sup> Mothers who return to work rely on breast pumps to collect their milk and maintain their milk supply while they are away from their baby.<sup>202</sup> Breast pumps are especially important for low-income mothers, who often must return to work shortly after birth. Also, mothers may use breast pumps to bridge the gap temporarily when they are having breastfeeding problems, such as latch difficulties or slow infant weight gain or loss.

## **Inadequate Insurance Coverage for Professional Support**

Many breastfeeding mothers in Rhode Island do not have adequate insurance coverage for lactation support services, a situation that creates a significant barrier to successful breastfeeding initiation and duration. Some third-party payors do not provide reimbursement for services rendered by Certified Lactation Counselors (CLCs). If they do reimburse for these services, it is often only for a specified number of visits or for specified conditions. This situation is a barrier for women seeking professional support, as they then have to pay out of pocket for these services.

## **Lack of Education about Breastfeeding in Schools**

Currently, there is very little education about breastfeeding in the school curricula in Rhode Island and this lack of education contributes to the limited acceptance of breastfeeding. Studies have shown that family members have an important influence on women's choices to breastfeed.<sup>182</sup> Including breastfeeding education in school will help children understand the benefits of breastfeeding, recognize breastfeeding as the normal way to feed babies, feel comfortable around breastfeeding mothers, and have positive feelings about women breastfeeding around them.

## **Lack of Support for Breastfeeding in Childcare Facilities**

Many childcare facilities do not provide optimum support for breastfeeding mothers of children in their care. Since childcare is now the norm, this lack of breastfeeding support in childcare facilities can pose a significant barrier to breastfeeding initiation and duration.

Some of the barriers that are present in childcare facilities include:

- Lack of a designated space where mothers can breastfeed their infants on site;
- Lack of a designated refrigerated space for expressed breastmilk to be stored, or
- Lack of policies that allow breastmilk to be provided in containers other than bottles.
- Untrained childcare staff who lack the knowledge or skills necessary to support mothers in continuing to breastfeed the infants in their care support.

## **Commercial Promotion of Infant Formula**

Infant formula is marketed and promoted in a variety of ways, such as through the distribution of hospital discharge packs, coupons for free or discounted formula, direct mailings to the home, and aggressive advertising. This commercial promotion decreases breastfeeding rates, duration, and exclusivity. The distribution of free infant formula samples in hospitals has been shown to reduce exclusive breastfeeding.<sup>203</sup> The distribution of educational materials produced by infant formula manufacturers to pregnant women intending to breastfeed has been shown to decrease both exclusivity and duration of breastfeeding,<sup>204</sup> and this impact was much greater on women without breastfeeding goals. In addition, the distribution of formula or vouchers in hospitals, healthcare facilities, or physicians' offices places the healthcare provider in the position of advertising or promoting a specific product, and of potentially contributing to some patients not nursing their infants.<sup>203</sup>

The effect of the marketing practices of commercial competitors on breastfeeding is of particular concern because of its negative impact on mothers known to otherwise be at high-risk of early cessation of breastfeeding, such as first-time mothers, those with less formal education, racial and ethnic minority women, and ill postpartum mothers.<sup>203</sup>

## **Limited Public Acceptance of Breastfeeding**

Many communities and towns in Rhode Island do not have designated public areas, such as restaurants, stores, libraries, cinemas or outdoor centers, where women can breastfeed their infants. Many women feel uncomfortable or embarrassed breastfeeding in public places, and this lack of comfort poses a barrier to successful breastfeeding.<sup>205</sup> This discomfort is due to several factors:

- Limited personal experience with breastfeeding or breastfeeding mothers;
- Misconceptions related to breastfeeding, and
- For many, breastfeeding still remains unseen and mysterious.

Although Rhode Island has adopted legislation that protects a woman's right to breastfeed, additional interventions are needed to support breastfeeding mothers and increase public acceptance of breastfeeding.

## Rhode Island's Breastfeeding Objectives

**Objective 2:**            **Increase the proportion of mothers who meet national breastfeeding recommendations.**

Objective 2a:        By 2010, increase to 75% the proportion of mothers who breastfeed their babies in the early postpartum period.

Objective 2b:        By 2010, increase to 50% the proportion of mothers who breastfeed their babies for at least six months.

Objective 2c:        By 2010, increase to 25% the proportion of mothers who breastfeed their babies for at least 12 months.

Objective 2d:        By 2010, increase to 60% the proportion of mothers who breastfeed their babies exclusively for three months.

Objective 2e:        By 2010, increase to 25% the proportion of mothers who breastfeed their babies exclusively for six months.

### 3. Increased Physical Activity

#### Benefits of Physical Activity

Physical activity is defined as any bodily movement that expends energy, or burns calories. Walking or biking for transportation, chores, hobbies, exercise, and job related duties can all be forms of physical activity.

Physical activity has many health benefits for adults, adolescents, and children. It reduces the risk of developing high blood pressure, high cholesterol, heart disease, stroke, diabetes, osteoporosis, and certain types of cancer. Physical activity also improves the symptoms of depression and anxiety, and relieves arthritis pain. In adolescents and children, regular physical activity helps develop a healthy heart and lungs, strong bones and muscles, and is associated with positive self-esteem and improved academic performance.

#### Relationship to Obesity

Because physical activity burns calories and helps maintain muscle, it is an important part of weight loss and weight maintenance. Evidence shows that physically active people have lower BMIs and body fat percentages than more sedentary people.<sup>206,207,208,209</sup> Several studies<sup>210,211,212,213,214</sup> have examined the role of physical activity in weight loss and found that:

- Physical activity affects weight and body composition by promoting fat loss and preserving or increasing muscle.
- Weight loss is related to the frequency (days a week) and duration (minutes per session) of physical activity.

#### National Recommendations

To gain the health benefits of physical activity, CDC and the American College of Sports Medicine recommend that adults, ages 19 years or older, accumulate at least 30 minutes of moderate intensity physical activity at least five days a week.<sup>51,215 216</sup> Activity can be accumulated in 10–15 minute bouts. To lose weight, however, individuals may need to burn more calories by accumulating more than 30 minutes of physical activity per day.

Adolescents and children, ages 6–18 years, should accumulate 60 or more minutes of moderate to vigorous physical activity every day through a variety of age-appropriate activities.<sup>217</sup>

The National Association for Sport and Physical Education recommends that toddlers accumulate at least 90 minutes per day of physical activity with 30 minutes in a structured setting. Preschoolers should accumulate 120 minutes per day, with 60 minutes in a structured setting.<sup>218</sup>

## The Problem: Not Enough Physical Activity

While most people know the importance of physical activity, many people are still not regularly physically active. Similar to the rest of the nation, about half (49%) of RI adults do not accumulate 30 minutes of moderate physical activity at least five days a week, or 20 minutes of vigorous physical activity at least three days a week.<sup>219</sup> Over the past 12 years, there has been no significant change in the percentage RI adults who participate in no physical activity during their leisure time (25 to 29%).<sup>219</sup> This trend is similar to the United States as a whole.

While the current guidelines for physical activity for adolescents and children recommend 60 minutes of activity daily, 35% of RI high school students do not get 30 minutes of activity daily.<sup>220</sup>

## Disparities in Physical Activity

Large disparities in physical activity exist among population groups. The following groups are less likely to meet the recommended minimum level of physical activity:

- Females (52% vs. 46% males)
- Adults, ages 65 years or older (62% vs. 52% younger than 65)
- Hispanic adults (61% vs. 47% non-Hispanic Whites)
- Adults with lower incomes (68% vs. 40% with higher incomes)
- Adults with less than a high school education (66% vs. 43% college graduates)
- Adults with disabilities (65% vs. 49% people without disabilities)

In terms of physical activity during leisure time, the disparities are similar. The following groups are less likely to report participating in leisure time physical activity:

- Females (28% vs. 21% males)
- Older adults (39% vs. 22% younger adults)
- Hispanic adults (43% vs. 22% non-Hispanic Whites and 26% non-Hispanic Blacks)
- Adults with lower incomes (43% vs. 17% with higher incomes)
- Adults with less than high school education (49% vs. 17% college graduates)

As in adults, physical activity levels vary among different populations of high school students. The prevalence of insufficient physical activity is higher among:

- Females (40% vs. 29% males)
- Hispanic high school students (45% vs. 33% Whites)

## Contributing Factors and Barriers

There are many reasons why people do not get enough physical activity. The most commonly cited are time, cost, safety, lack of facilities, and dislike of strenuous activity. Often, these reasons are linked to an environment that presents more barriers than opportunities to be physically active, making activity time consuming, costly, dangerous, inconvenient, and often unnecessary. Some examples of environmental factors that discourage physical activity include:

- Technological advances
- Lack of physical activity in schools
- Greater dependence on cars

- Unequipped childcare facilities
- Decreased opportunities for physical activity in schools
- Unsafe communities

### Technological Advances

Americans no longer need to be physically active as part of their daily lives. Dishwashers, clothes washers, and riding lawn mowers among other labor saving advances have made routine physical activity unnecessary. The same is true outside the home. Most multi-story buildings have elevators or escalators, which are used more frequently than stairs. Stairwells are often marked with “emergency exit only” signs, are locked, or are poorly lit and maintained, further discouraging their use. The Internet lets consumers compare prices and purchase online, rather than walk around a shopping mall. Most stores have automatic doors, most homes have TVs, most TVs have remote controls, and most fast food restaurants (and banks and dry cleaners ...) have drive-through windows, eliminating the simplest of physical activities. Because of these technological advances, Americans save an estimated 700 calories per week, enough to contribute to a weight gain of one pound every five weeks or ten pounds per year.<sup>221</sup>

### Less Time for Physical Activity

US adults are now working over 49 hours a week<sup>222</sup> in jobs that are largely sedentary. Not only are Americans spending more time away from home on the job, they are spending more time commuting because jobs have moved out of local communities and into cities. Increased auto dependence has contributed to workers spending more time commuting in traffic. The result is that many people have less free time to be physically active.

Young people are spending more time in structured settings than ever before. In addition to the typical seven hours a day in school, many adolescents and children spend additional time in structured after-school settings, which often focus on academics and leave little time for physical activity. Increasing homework demands and organized activities, such as lessons and tutoring, have further limited children’s time for unstructured physical activity.<sup>223</sup> The result is that children spend the majority of their time in planned sedentary activity.

### Greater Dependence on Cars

Twenty-six percent of all trips are one mile or less, but only 21% of these trips are made on foot<sup>224</sup> because development patterns have decreased the ability to walk or bike for transportation. Between 1977 and 2001, walking trips declined while driving trips increased. In 1969, approximately half of all school children walked or biked to school, and 87% of those living within one mile of school walked or biked.<sup>225</sup> Today, fewer than 15% of adolescents and children use active modes of transportation.<sup>226</sup>

Current development patterns are partly responsible for increased car dependence.<sup>227,228</sup> A traditional neighborhood (**Figure 16**, left side) locates houses, schools, shops, and offices in close proximity to one another. Pedestrians can conveniently access shops and services without crossing any wide, busy roads.<sup>229</sup> In contrast, the design of conventional communities (**Figure 16**, right side) locates residential, commercial, and school buildings in separated areas that are connected by wide, straight main roads that allow more traffic to move at higher speeds. People who live in conventionally designed communities have no choice but to drive to shops and services because distances are too far and walking conditions are too dangerous. In addition, new “mega-schools” are often built on the outskirts of town, too far away for children to walk or bike to school. Because of this type of development, many people are not able to be physically active as part of daily transportation or recreation in their own neighborhoods. In

particular, children have fewer opportunities and less freedom to walk or bike to school, the library, or even a friend's house.

**Figure 16. Traditional vs. Conventional Neighborhood Design**



**Source:** Local Government Commission

### **Unequipped Childcare Facilities**

The quality and quantity of physical activity in childcare settings can vary depending on indoor space, gross motor play equipment, outdoor play area, group size, and the education and training of childcare staff.<sup>230</sup> Many childcare centers do not have the facilities or staff to offer the necessary opportunities for young children to develop their movement skills. When children return home, often at the end of their parents' workday, there may be little time left for physical activity at home. As a result, many preschoolers who are enrolled in childcare are not meeting the recommended guidelines of two hours of physical activity a day.<sup>231</sup>

### **Lack of Physical Activity in Schools**

Over the last decade, many schools have been forced to cut physical education because of budget constraints and the need to increase academic test scores. Even when schools do offer physical education, it is for fewer days per week than is recommended. Only 8% of elementary schools and 6% of middle, junior, and senior high schools provide daily physical education for all students during the entire school year.<sup>232</sup>

Today, only 28% of high school students nationally, and 21% of RI high school students attend physical education daily. When those children are in physical education classes, 20% do not get even 20 minutes of physical activity during class. In Rhode Island, elementary schools



average only 55 minutes per week of physical education, far below the recommended 150 minutes per week for these schools. Middle schools in Rhode Island average 100 minutes per week, and high schools average 120 minutes per week.<sup>233</sup> This is also less than the recommended 225 minutes per week for middle and high school students.

The need for more instructional academic time, safety and liability concerns, lack of staff to supervise children, and concerns about disrupting children's work patterns have led some schools to cut another opportunity for physical activity—recess.<sup>234</sup> More than a quarter of all elementary schools do not provide regularly scheduled recess for all students in kindergarten through fifth grade. Without physical education and recess, children are spending their entire school day, about seven straight hours, without any physical activity.

### **Unsafe Communities**

Neighborhood safety affects physical activity levels. In one study, only 27% of people without access to safe places to walk met physical activity recommendations, compared to 43% of people with access to safe places to walk.<sup>235</sup> Parents report that safety considerations are the most important factor in selecting play spaces for their young children.<sup>236</sup> “Traffic danger” and “stranger danger” are major reasons why parents drive their children to school or do not allow them to walk or play in the neighborhood.<sup>237</sup> These safety issues limit children's outdoor play, which is concerning because children who play outside tend to have higher physical activity levels.<sup>238,239</sup> Safety is an even greater issue among low-income families who live in urban neighborhoods, as these areas are often perceived as unsafe. The result is that parents who feel the neighborhood is unsafe often replace their child's outdoor play with TV, videogames, or other sedentary forms of recreation.

## Rhode Island's Physical Activity Objectives

**Objective 3:**            **Increase the proportion of adults, adolescents, and children who meet the national physical activity recommendations.**

Objective 3a:        By 2010, increase to 60% the proportion of adults, ages 18 years or older, who engage in moderate physical activity for at least 30 minutes daily on at least five days of the week.

Objective 3b:        By 2010, increase to 40% the proportion of adolescents and children, ages 17 years or younger, who engage in moderate physical activity for at least 60 minutes daily.

## 4. Reduced Screen Time

### Benefits of Reducing Screen Time

Screen time, defined as time spent watching TV, playing videogames, watching videos, or using a computer for recreation, is the most common form of recreation today. Studies indicate that American children spend more time watching TV than they do in any other activity besides sleeping.<sup>240</sup> The 1000 plus hours a year the average child spends in front of a screen displaces other more productive activities such as physical activity, reading, time with family and friends, and more.<sup>241</sup> Screen time has also been linked to violence, underachievement and poor social skills.

### Relationship to Obesity

Screen time may contribute to overweight in three ways by replacing physical activity with sedentary activity, decreasing metabolic rate, and increasing calorie consumption.

#### **Sedentary Activity**

Screen time can displace physically active time. Research suggests that children who spend the most time in front of a screen are the least active.<sup>242,243</sup> In one study, children who spent more than two hours a day watching TV played less than children who watched less than two hours a day.<sup>244</sup>

#### **Metabolic Rate**

Some research indicates that the excessively sedentary nature of screen time may undermine the benefits of physical activity by actually decreasing metabolic rate. One study found that children expended more energy at rest than they did while watching TV, adding up to an estimated decrease of 200 calories burned per day.<sup>245</sup>

#### **Calorie Consumption**

In addition to the sedentary nature of screen time, children are also influenced by their exposure to food advertising, which encourages the consumption of high-fat, high-calorie foods.<sup>246</sup> Children's shows advertise food once every five minutes.<sup>247</sup> Exposure to these advertisements makes it more likely that children will choose the high-fat, high-calorie foods advertised, that they will ask their parents for these foods, and that their parents will buy these foods.<sup>248,249</sup> In addition to television commercials, food advertising is now prevalent in videogames and on the Internet.

Many studies show a connection between screen time and weight.<sup>250,251</sup> National data show that the prevalence of obesity is highest among children who watch four or more hours of TV per day and lowest among those who watch less than one.<sup>252</sup> An estimated 25–60% of the increase in overweight and obesity in recent years may be due to screen time.<sup>253,254</sup> It even appears that there may be dose response: each hour of additional screen time per day corresponds to an increase in the risk of overweight. Children with a TV in their bedroom may be at even greater risk of overweight.<sup>255</sup>

Reducing screen time can increase physical activity levels and improve BMI. One study showed that children who limited their screen time to no more than seven hours per week decreased their BMI and body fat percentage, without additional prompting to be more physically active.<sup>256</sup> Another study showed that children who agreed to not engage in any screen time for one week

had about 109 extra screen-free minutes per day and participated in 4.3 different leisure time activities. Children who did not limit their screen time spent 22 more minutes per day in front of a screen and engaged in only three different leisure time activities.<sup>257</sup>

## National Recommendations

The American Academy of Pediatrics recommends that children over age two watch two or fewer hours of television per day,<sup>258</sup> and children under the age of two watch no TV.

## The Problem: Too Much Screen Time

Too many children are spending too much time in front of a screen. US children spend approximately 4.5 hours a day in front of a screen.<sup>259</sup> Forty-six percent of US elementary school students, 51% of middle school students, and 45% of high school students watch two or more hours of TV on the average school day.<sup>260</sup> Thirty-eight percent of US high school students are watching three or more hours of TV daily. Even very young children are watching too much TV. One study found that 41% of children, ages 24–36 months, are watching more TV than recommended.<sup>261</sup>

In Rhode Island, almost a third (32%) of high school students are watching three or more hours of TV per day.<sup>220</sup> According to another local data source, 15–20% of elementary and middle school students reported watching four or more hours of TV, and another 9–12% reported playing more than four hours of computer or videogames.<sup>262</sup>

## Disparities in Screen Time

As is seen nationally, TV watching is disproportionate among different population groups in Rhode Island.

The prevalence of high screen time levels (four or more hours of TV daily) is higher among:

- Male high school students (36% males vs. 27% females)<sup>220</sup>
- Hispanic high school students (42% Hispanic vs. 28% Whites)<sup>220</sup>
- Low-income children (26% low-income vs. 15% high-income)<sup>262</sup>

## Contributing Factors and Barriers

Sitting in front of a screen has become an easier and more convenient option than being physically active. TVs, computers, and videogames have saturated the environment. The average child today has access to multiple television sets with dozens of channels, a VCR or DVD player, a videogame console, and a computer with Internet access. Ninety-eight percent of children live in homes with at least one TV set<sup>263</sup> and the average family has four. Almost half of all children have a TV in their bedroom. Other forms of media are also making their way into children's bedrooms: 39% have a videogame console, 30% have a VCR, 20% have a computer, and 11% have Internet access.

TV, videos, and videogames are often seen by parents as inexpensive forms of entertainment that keep children happy and supervised. This “media saturation” combined with the low cost and convenience of these activities has led to the development of physically inactive behaviors, interests and pastimes. Rather than being active, children often come home and watch TV, play videogames, or surf the web.

## Rhode Island's Screen Time Objectives

**Objective 4:**            **Increase the proportion of adolescents and children who meet national screen time recommendations.**

Objective 4a:        By 2010, increase to 60% the proportion of adolescents and children, ages 17 years or younger, who spend two or fewer hours per day in front of a screen (i.e., TV, video, videogames and recreational computer use).

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Section 6: **Short-Term Objectives**  
***Environmental Solutions***

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## Environmental Contributions

Past attempts at improving nutrition and physical activity have focused primarily on individual behavior change through one-on-one counseling, education, and support groups. While these types of interventions have been moderately effective at improving nutrition and physical activity behaviors, it is extremely difficult to begin and sustain healthy lifestyle changes without a supportive environment.<sup>264</sup>

As recently as a century ago, virtually all babies were breastfed; most meals were grown, prepared, and eaten at home; people needed to be physically active to get from place to place; and generating income and maintaining households were physically demanding. As recently as 50 years ago, screen time was not an issue because there were few televisions, no VCRs or videogames, nor were there as many timesaving devices in American households. However, lifestyles have changed and so too has the environment.

The current environment is characterized by an essentially unlimited supply of convenient, relatively inexpensive, highly palatable, energy-dense foods, coupled with a lifestyle requiring low levels of physical activity for survival. Expenditure on foods prepared outside of the home now accounts for over 40% of a family's budget spent on food. Soft drink consumption supplies the average teenager with over 10% of his or her daily caloric intake. Fewer women are home with their children for the first year of life, and few workplaces support nursing mothers. Children do not have opportunities for activity in the forms of recess, physical education, and walking to school. Adults are spending more time at work in sedentary jobs and more time commuting by car. Televisions, movies, and computers are the number one form of recreation. Instead of encouraging healthy choices, our environment promotes behaviors that lead to overweight and obesity.

The only way to ensure sustainable change is to change the environment from one that supports overeating and sedentary behavior to one that supports and promotes healthy eating and active living.

## Short-Term Objectives

The short-term objectives in the Plan are policies, programs, and environmental supports that are necessary first steps in achieving the intermediate objectives of improved nutrition, increased breastfeeding, increased physical activity, and reduced screen time. The objectives are presented by implementation setting: schools and after-school programs, early childhood settings, communities, healthcare, and worksites. The overarching goal of all of these objectives is to make the healthy choice the easy and affordable one.

All of the objectives in the Plan are based on the most recent scientific information and evidence base, national recommendations, best and promising practices, and the knowledge and expertise of the members of the Collaborative.

Based on RI data, the objectives and strategies in the Plan will target disparate populations, including racial and ethnic minorities, low-income populations, and people with disabilities. Strategies and will be implemented using methods that are culturally and linguistically appropriate for each population, and will be in compliance with the Americans with Disabilities Act.<sup>265</sup> The National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Healthcare (**Appendix F**) issued by the USDHHS Office of Minority Health will inform, guide, and facilitate required and recommended practices related to culturally and linguistically appropriate health services. Although specific to healthcare delivery, the CLAS Standards will also be applied, when appropriate, to the design and implementation of all interventions related to the short-term objectives presented in the Plan. The social marketing approach will guide the design and implementation of all interventions stemming from these objectives.



## Schools and After-School Programs (S)

Schools and after-school programs offer a unique opportunity to promote healthy eating and active living among students, staff and families. Most children spend about seven hours per day and nearly 2,000 hours per year in school.<sup>266</sup> Eighteen percent (18%) of RI youth, grades K–12, participate in after-school programs and, on average, spend ten hours per week in these programs. Not only can schools and after-school programs teach students about healthy eating and active living, they can also adopt policies and create environments that support these behaviors, thereby reinforcing what the students learn in the classroom. Schools can also impact the health of families and staff by offering them opportunities to learn about, engage in, and practice healthy eating and active living behaviors.

Rhode Island is in the process of creating an infrastructure to facilitate policy and environmental changes in school settings. A 2005 RI law requires that each District School Committee create a District Wellness Subcommittee, charged with developing a plan for addressing obesity and promoting healthy eating and active living in schools. This plan will be presented to the District School Committees for adoption. The overall goal of this plan is to enhance the health and well being of students and employees.

This new State Law and the formation of District Wellness Subcommittees provide an unprecedented opportunity for developing and implementing policies and environmental changes that support and promote healthy eating and increased physical activity for students, staff, and families. Much of the work that will be done in schools and after-school programs will be done through these subcommittees in collaboration with the Department of Education and the CDC-funded Coordinated School Health Program.

## Short-term Objectives in Schools and After-School Programs

\* Denotes school objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity School-Aged Children Action Plan (Appendix D1)*.

**Objective S1:**            **By 2008, increase the number of school districts that have policies limiting unhealthy foods and beverages on campus and encouraging the distribution and consumption of safe and healthy foods and beverages.\* §**

### Proposed Partners

HEALTH and the RI Department of Education's (RIDE) Coordinated School Health Program; RI Healthy Schools Coalition; RIDE's Child Nutrition Program; KIDS FIRST, Inc.; RI After School Plus Alliance; New England Dairy Council

### Sample Strategies

- Advocate for adoption of state-endorsed policy language for nutrition that includes nutrition guidelines for all competitive foods available in schools and a corresponding approved foods list.
- Advocate for adoption of policies that:
  - Require foods and beverages sold in snack bars, vending machines, and a la carte lines to comply with state nutrition guidelines.

- Limit high-fat items in the school meals program to once per week.
  - Eliminate the sale of whole milk products in schools and require that only fat-free and 1% milk products be available.
  - Increase the number and variety of fruits and vegetables served in the school breakfast and lunch programs.
  - Require all foods and beverages provided in before- and after-school programs comply with state nutrition guidelines.
  - Require that any fundraising activity involving food comply with state nutrition guidelines.
  - Require that snacks, if offered, make a positive contribution to children's diets and health, with an emphasis on serving fruits and vegetables as the primary snack and water as the primary beverage.
  - Require all foods and beverages offered or sold at school events comply with state nutrition guidelines.
  - Prohibit the use of food and beverages as reward or punishment.
  - Require adequate time for school breakfast and school lunch.
  - Prohibit pastries in the School Breakfast Program.
  - Restrict the advertising and marketing of unhealthy foods and beverages on the school campus.
- Educate decision makers about the benefits of healthy eating in terms of health, behavior, and academic achievement.
  - Develop and disseminate toolkits for District Wellness Subcommittees.
  - Provide training, technical assistance, and resources to District Wellness Subcommittees to use in adapting and implementing policies. §
  - Assist in expanding and strengthening relationships between schools and vendors and distributors of healthy foods and beverages.

**Objective S2: By 2008, increase the number of schools that provide opportunities for skill-based nutrition education and physical activity that are aligned with Rhode Island Health Education Standards and integrated into other subject areas.\* §**

#### Proposed Partners

HEALTH and RIDE's Coordinated School Health Program; RI Healthy Schools Coalition; RIDE's Child Nutrition Programs; KIDS FIRST, Inc.; RI Association of Health, Physical Education, Recreation and Dance; New England Dairy Council

#### Sample Strategies

- Provide training, technical assistance, and resources to District Wellness Subcommittees on ideas for integrating behaviorally focused activities that include active learning opportunities. §
- Provide standards-based professional development for all health, family and consumer science, and physical education teachers.
- Provide annual professional development training in skill-based nutrition education and physical activity for teachers and school food service staff.
- Provide model curricula for schools and teachers.
- Encourage the integration of nutrition education into school meals programs.

**Objective S3: By 2008, increase the number of schools that have farm-to-school programs.\* §**

Proposed Partners:

KIDS FIRST, Inc.; Farm Fresh Rhode Island; HEALTH and RIDE's Coordinated School Health Program; RI Healthy Schools Coalition; RI Division of Agriculture; RI Center for Agricultural Promotion and Education; New England Dairy Council

Sample Strategies

- Implement Happy Apple Award Program to recognize school districts that purchase local farm products and schools that creatively integrate locally-grown, fresh food into the school environment.
- Maintain an online database of local farms for food service directors that includes recipes for institutions, a harvest calendar, "kids' picks", menu ideas, and promotional materials.
- Advocate for legislation that provides financial incentives for school districts to purchase local farm products.
- Educate school administrators, food service directors and District Wellness Subcommittees on the benefits of purchasing local farm products.
- Organize reduced-price farm tours for all food service directors.
- Explore funding options for a Farm-to-School Coordinator.
- Develop and implement staff education program for school districts that includes trips to Farmers' Markets, farms, processing plants, and kitchens.
- Encourage food service providers to adjust policies to encourage purchasing of local produce.

**Objective S4: By 2008, increase the number of school districts that provide staff wellness programs that include obesity prevention, weight management, nutrition education, physical activity, and screen time education.\* §**

Proposed Partners

Governor's Wellness Initiative; Worksite Wellness Council of Rhode Island (WWCRI); Governor's Get Fit, Rhode Island! State Employee Wellness Initiative; HEALTH and RIDE's Coordinated School Health Program; RI Healthy Schools Coalition; KIDS FIRST, Inc.; YMCA; New England Dairy Council; HEALTH's Disability and Health Program

Sample Strategies

- Provide training, technical assistance, and resources to District Wellness Subcommittees regarding staff wellness programs that include nutrition education, physical activity, obesity prevention, weight management, and screen time reduction. §
- Develop a pilot worksite wellness program accessible to all schools.
- Develop and disseminate wellness articles to school staff.
- Develop and assist in the implementation of a health risk appraisal program for school staff.
- Develop and distribute family-based TV Turnoff Week Kits to District Wellness Subcommittees.

- Provide information about best and promising practices to District Wellness Subcommittees.

**Objective S5:**            **By 2008, increase the number of school districts that provide obesity prevention programs, weight management programs, nutrition education, physical activity, and screen time education for families.\* §**

Proposed Partners

HEALTH and RIDE's Coordinated School Health Program; RI Healthy Schools Coalition; RIDE's Child Nutrition Programs; KIDS FIRST, Inc.; YMCA; New England Dairy Council; HEALTH's Disability and Health Program

Sample Strategies

- Provide training, technical assistance, and resources to District Wellness Subcommittees about the benefits of providing educational programs for families. §
- Disseminate evidence-based programs, such as YMCA's behavior change program.
- Provide training and technical assistance to implement programs.
- Assist schools in securing funding for programs.
- Develop and distribute family-based TV Turnoff Week Kits to District Wellness Subcommittees.
- Develop and distribute sample family physical activity programs and ideas for events and fundraisers to District Wellness Subcommittees.
- Develop and distribute model policies for schools to open recreation facilities after hours.

**Objective S6:**            **By 2008, increase the number of schools that offer high-quality physical education for 150 minutes per week for Kindergarten–6<sup>th</sup> graders and 225 minutes per week for 7<sup>th</sup>–12<sup>th</sup> graders.\* §**

Proposed Partners

HEALTH and RIDE's Coordinated School Health Program; RI Association of Health, Physical Education, Recreation and Dance; RI Healthy Schools Coalition; HEALTH's Disability and Health Program

Sample Strategies

- Collaborate with District Wellness Subcommittees to advocate with the General Assembly and the Board of Regents for strengthened physical education requirements in schools. §
- Provide health and physical education teachers with ongoing professional training on the RI Physical Education Standards.
- Provide training for health and physical education teachers on adapted physical education.
- Provide District Wellness Subcommittees with training and resources regarding evidence-based physical education programs, such as SPARK Physical Education or CATCH that can help teachers meet standards.

- Provide District Wellness Subcommittees with best practices and success stories.
- Develop a Governor's Innovative Practices award program that recognizes schools for meeting physical education recommendations.
- Develop a system for regularly updating the RI Physical Education Framework.
- Explore funding opportunities for permanent Physical Education Specialist position at RIDE.

**Objective S7:           By 2012, increase the number of schools that have a breastfeeding education curriculum.**

Proposed Partners

RI Breastfeeding Coalition; HEALTH's Breastfeeding Coordinator; RI Healthy Schools Coalition; RIDE; public, private, and charter schools

Sample Strategies

- Identify schools interested in piloting a breastfeeding education curriculum.
- Develop or adapt and distribute pilot breastfeeding curriculum, such as the New York State curriculum, to interested schools.
- Provide training and technical assistance to schools.
- Recognize schools that successfully adopt curriculum.

**Objective S8:           By 2008, increase the number of school districts with policies or programs that provide opportunities for physical activity that are not a substitute for physical education.**

Proposed Partners

HEALTH and RIDE's Coordinated School Health Program; RI Association for Health, Physical Education, Recreation and Dance; RI Healthy Schools Coalition; HEALTH's Disability and Health Program; KIDS FIRST, Inc.

Sample Strategies

- Develop and disseminate model policy language for policies that will:
  - Require opportunities to integrate physical activity into regular classes throughout the school day.
  - Require daily recess at all elementary schools.
  - Require school playground accessibility to all students at recess.
  - Require after-school programs to provide opportunities for physical activity.
- Provide training, technical assistance, and resources for District Wellness Subcommittees on the adaptation and implementation of these policies. §
- Provide staff training on incorporating physical activity into classroom instruction.
- Provide info on Brain Gym, Take 10, and other promising practices.
- Develop a Governor's Innovative Practices award program that recognizes school districts for offering physical activity opportunities outside of physical education.

- Educate decision makers about the benefits of physical activity during the school day in terms of health, behavior, and academic achievement.

**Objective S9: By 2008, increase the number of schools and school districts that provide families with opportunities to be physically active.\* §**

Proposed Partners

HEALTH and RIDE's Coordinated School Health Program; RI Association for Health, Physical Education, Recreation and Dance; RI Healthy Schools Coalition; HEALTH's Disability and Health Program; KIDS FIRST, Inc.

Sample Strategies

- Develop and disseminate model policy language for policies that will allow schools to remain open after the school day for physical activity.
- Advocate for schools to implement this policy.
- Provide training, technical assistance, and resources for District Wellness Subcommittees on the adaptation and implementation of this policy. §
- Provide training, technical assistance, and resources to schools regarding promising practices for schools to provide opportunities for families to be active.
- Develop a Governor's Innovative Practices award program that recognizes schools that provide opportunities for families to be active.
- Educate decision makers about the benefits of providing families with opportunities to be active.

**Objective S10: By 2008, increase the number of after-school programs that have policies, programs, and environments that support and promote physical activity and healthy eating behaviors.\* §**

Proposed Partners

HEALTH and RIDE's Coordinated School Health Program; RI After School Plus Alliance; KIDS FIRST, Inc.; RI Healthy Schools Coalition; YMCA; New England Dairy Council; HEALTH's Disability and Health Program

Sample Strategies

- Recruit after-school program organizations to participate in District Wellness Subcommittees. §
- Develop and disseminate model policy language for policies that will:
  - Limit screen time in after-school programs
  - Require that all food served meet state nutrition guidelines.
  - Require time for physical activity.
  - Encourage nutrition education activities be incorporated into after-school programs.
- Distribute healthy eating and active living toolkits to after-school programs that include guidelines and best practices, model policies, programs, and funding opportunities.
- Provide training and technical assistance to after-school programs on implementing policies and programs.

- Develop an after-school program parent guide highlighting after-school programs that adopt nutrition and physical activity policies and that include physical activity and nutrition education in after-school programs. §
- Build partnerships with groups working in before- and after-school care.
- Advocate for low cost after-school programs that provide physical activity and hands-on nutrition education activities.
- Advocate for policies that require ongoing training for after-school providers.
- Educate after-school program administrators about the benefits and ease of incorporating physical activity into the after-school program setting.
- Develop or adapt a campaign to raise awareness about after-school programs that promote healthy eating and active living.

**Objective S11: By 2008, increase the number of school districts that have policies or programs that encourage active transportation.\* §**

#### Proposed Partners

RI Statewide Planning; RI Department of Transportation; HEALTH's Safe Rhode Island Program; HEALTH and RIDE's Coordinated School Health Program; RI Healthy Schools Coalition; KIDS FIRST, Inc.; law enforcement; Parent Teacher Associations; HEALTH's Disability and Health Program; local planners

#### Sample Strategies

- Provide training, technical assistance, and resources to District Wellness Subcommittees on policies and programs that encourage active transportation. §
- Assist with the development and promotion of Safe Routes to School Requests for Proposals.
- Assist communities in forming Safe Routes to School teams.
- Educate schools, planners, community members, parent teacher associations, law enforcement, community groups, and elected officials about benefits of Safe Routes to School improvements.
- Provide workshops for professional groups to garner statewide support for Safe Routes to School.
- Provide workshops for schools or districts to explain the Safe routes to school program.
- Provide workshops for individual schools, with assistance of engineers and planners, to complete walkability/accessibility assessments and develop Safe Routes to School action plans.
- Develop and disseminate a Safe Routes to School toolkit including model policies and programs, funding opportunities, programs and incentives for engaging students, and upcoming workshops.
- Promote additional funding opportunities with schools and communities, including Transportation Improvement Program and enhancement funds.
- Develop a campaign that emphasizes the successes of other active transport programs.
- Provide training and assistance in developing walking school busses.
- Develop a Governor's Innovative Practices award program that recognizes schools with active transportation policies and programs.

- Hold Walk-to-School Day to raise awareness.

**Objective S12: By 2008, increase the number of schools that have school garden programs. §**

Proposed Partners

RI Center for Agricultural Promotion and Education; KIDS FIRST, Inc.; RI Healthy Schools Coalition; University of Rhode Island (URI) Master Gardeners Program

Sample Strategies

- Provide training, technical assistance, and resources to District Wellness Subcommittees regarding school gardens. §
- Assist schools in partnering with community organizations to ensure sustainability of school garden programs.
- Develop a Governor's Innovative Practices award program that recognizes schools for implementing school garden programs.
- Assist schools in leveraging funding to ensure sustainability of programs.
- Develop and disseminate model lessons that integrate school gardening into the curriculum.
- Encourage visits to local farms and visits from local farmers.
- Provide curriculum, tips, and resources to be used in conjunction with school gardening.

**Objective S13: By 2008, increase the number of schools that address screen time education in their school improvement plans.**

Proposed Partners

School Improvement Teams; District Wellness Subcommittees; HEALTH and RIDE's Coordinated School Health Program

Sample Strategies

- Provide training, technical assistance, and resources to District Wellness Subcommittees regarding the importance of screen time education. §
- Educate School Improvement Teams to use School Accountability for Learning and Teaching (SALT) data to identify screen time problems.
- Supply School Improvement Teams with best practices, guidelines, and model programs.
- Declare statewide TV Turnoff Week.
- Develop model language for use in school improvement plans.
- Provide training on screen time reduction curriculum or program.



## Early Childhood Settings (ECS)

Childcare settings can be a major force in introducing the concepts of healthy eating and active living to the youngest children, while also supporting parents and staff in achieving and maintaining healthy lifestyles for themselves and their families. They can lay the foundations for health and create environments to ensure that young children are offered healthy foods and regular physical activity.

Reliance on childcare has grown rapidly over the past three decades. The percent of mothers in the workforce rose from 38% in 1970 to 68% in 2000.<sup>267</sup> Today, 60% of mothers of preschoolers are employed with 70% working full-time and 30% working part-time. Recent estimates indicate that 61% of young children are in some form of childcare on a regular basis. Childcare participation is at an all-time high; in fact, it is now the norm.<sup>268</sup> Parents and childcare providers are now sharing responsibility for a large and growing number of children during important developmental years, making childcare an important setting in which to address the problem of overweight and obesity.

Since childcare providers are in frequent contact with parents, they also have the opportunity to influence the nutrition, physical activity, and screen time behaviors of parents and their families. Childcare providers can support parents in their decision to breastfeed through policies, staff training programs, and environments that encourage and facilitate breastfeeding. They can also support parents in being role models for their children by adopting healthy eating and physical activity behaviors.

Finally, because childcare settings are also worksites, they can implement policies and programs that support staff in adopting healthy eating and active living behaviors, being role models for, and promoting healthy behaviors with the children in their care.

## Short-term Objectives in Early Childhood Settings

\* Denotes childcare objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity Early Childhood Action Plan (Appendix D2)*.

**Objective ECS1:**     **By 2008, increase the number of licensed childcare facilities that provide menus consistent with the *2005 Dietary Guidelines for Americans* and the United States Department of Agriculture *Child and Adult Care Food Program Guidelines*.\***

### Proposed Partners

HEALTH's Childcare Liaison; RIDE's Child Nutrition Programs; Childcare providers; Head Start; KIDS FIRST, Inc.; URI Food Stamp Nutrition Education Program; Healthy Child Care Rhode Island; Childcare Support Network; CHILDSPAN; Successful Start; Childcare Directors' Association; Family Childcare Homes of Rhode Island, Inc; RI Department of Children, Youth and Families; RI Department of Human Services' Early Intervention Program

### Sample Strategies

- Assist in providing training for childcare providers regarding menu planning to meet the Dietary Guidelines.
- Provide ongoing technical assistance to childcare providers in the development and implementation of menus.
- Advocate for the inclusion of revised standards for menus in childcare licensing regulations.
- Advocate for a state policy requiring childcare program meals to be consistent with the Dietary Guidelines.
- Develop and implement an award program to recognize childcare providers whose menus meet or exceed the Dietary Guidelines.
- Provide childcare providers with toolkits and educational resources for assessing and implementing menus that comply with the Dietary Guidelines.
- Adapt and disseminate evidence-based childcare nutrition programs, such as the North Carolina NAPSACC Program.
- Provide ongoing education for providers on label reading and serving sizes.
- Assist in providing training for providers on nutrition recommendations for children with special healthcare needs.
- Encourage childcare programs to provide vouchers for the purchase of fruits, vegetables, and healthy snacks.

**Objective ECS2:**     **By 2008, increase the number of licensed childcare facilities that have nutrition guidelines consistent with the *2005 Dietary Guidelines for Americans* for all foods and beverages brought from home.\***

### Proposed Partners

HEALTH's Childcare Liaison; RIDE's Child Nutrition Programs; childcare providers; Head Start; KIDS FIRST, Inc.; URI Food Stamp Nutrition Education Program; Healthy Child Care Rhode Island; Childcare Support Network; CHILDSPAN; Successful Start; Childcare Directors' Association; Family Childcare Homes of Rhode Island, Inc; RI Department of Children, Youth and Families; RI Department of Human Services' Early Intervention Program

### Sample Strategies:

- Educate childcare providers regarding the importance of adopting nutrition guidelines for foods and beverages brought from home.
- Develop and disseminate model childcare program guidelines for foods and beverages brought from home.
- Provide training and technical assistance for childcare staff on implementing nutrition guidelines for all foods and beverages brought from home.
- Provide training for providers on nutrition recommendations for children with special healthcare needs.
- Provide childcare providers with toolkits and educational materials for use with parents.
- Develop nutrition education messages for parents regarding foods and beverages brought from home that are consistent with messages received from other childcare providers. §

**Objective ECS3: By 2008, increase the number of licensed childcare facilities that provide healthy eating and active living education for staff, parents, and children.\***

Proposed Partners:

HEALTH's Childcare Liaison; HEALTH's WIC Program; Head Start; KIDS FIRST, Inc.; USDA's Child and Adult Care Food Program; URI Food Stamp Nutrition Education Program; Healthy Child Care Rhode Island; Childcare Support Network; CHILDSPAN; Successful Start; Childcare Directors' Association; Family Childcare Homes of Rhode Island, Inc; RI Department of Children, Youth and Families; RI Department of Human Services' Early Intervention Program; HEALTH's Disability and Health Program

Sample Strategies

- Develop, adopt, and disseminate a healthy eating and active living toolkit for childcare providers that includes components for in-center activities and family engagement. §
- Provide ongoing trainings on the use of the toolkit. §
- Develop and disseminate educational materials available for use with staff, parents, and children. §
- Develop and disseminate PowerPoint presentations, videotapes, DVD's, and online programs. §
- Adapt existing nutrition education materials or create/order new ones that deliver age-and developmentally-appropriate educational materials with consistent nutrition and physical activity messages for children and their parents. §

**Objective ECS4: By 2008, increase the number of licensed childcare facilities that have policies and programs that support physical activity.\***

Proposed Partners

HEALTH's Childcare Liaison; HEALTH's WIC Program; Head Start; KIDS FIRST, Inc.; RI Association for Physical Education, Recreation and Dance; Healthy Child Care Rhode Island; Childcare Support Network; CHILDSPAN; Successful Start; Childcare Directors' Association; Family Childcare Homes of Rhode Island, Inc.; RI Department of Children, Youth and Families; RI Department of Human Services' Early Intervention Program; HEALTH's Disability and Health Program

Sample Strategies

- Develop and disseminate model physical activity policies for childcare facilities. §
- Develop or adopt a physical activity curriculum for childcare facilities.
- Provide facilities with ongoing trainings on inclusive age- and developmentally-appropriate physical activity curricula.

**Objective ECS5: By 2008, increase the number of licensed childcare facilities that have policies and programs that support reduced screen time.\***

Proposed Partners

HEALTH's Childcare Liaison; HEALTH's WIC Program; Head Start; KIDS FIRST, Inc.; RI Association for Physical Education, Recreation and Dance; Healthy Child Care Rhode Island;

Childcare Support Network; CHILDSpan; Successful Start; Childcare Directors' Association; Family Childcare Homes of Rhode Island, Inc; RI Department of Children, Youth and Families; RI Department of Human Services' Early Intervention Program

#### Sample Strategies

- Develop and disseminate model screen time policies for childcare facilities. §
- Develop a screen time component for a healthy eating and active living toolkit.
- Provide ongoing technical assistance to childcare providers regarding implementation of model policies. §

**Objective ECS6: By 2010, increase the number of licensed childcare facilities that have policies, programs, and environments that support breastfeeding mothers.\* §**

#### Proposed Partners

HEALTH's Childcare Liaison; RIDE's Child Nutrition Programs; Healthy Child Care Rhode Island; Childcare Support Network; CHILDSpan; Successful Start; Childcare Directors' Association; Family Childcare Homes of Rhode Island; RI Department of Children, Youth and Families; HEALTH's Breastfeeding Coordinator; RI Department of Human Services' Early Intervention Program

#### Sample Strategies

- Advocate for a state policy regarding breastfeeding support at childcare facilities
- Incorporate breastfeeding guidelines into new childcare licensing regulations.
- Assist childcare providers in creating a space for mothers to breastfeed their children on-site.
- Create a recognition program for childcare facilities that support and promote breastfeeding.
- Provide ongoing technical assistance and resources for childcare providers.
- Develop consistent messages about healthy eating, physical activity, reduced screen time, and breastfeeding for childcare programs, childcare providers, and others.

## Communities (C)

Communities have the opportunity to support healthy eating and active living by changing the community environment through policies or environmental supports that will make it easier, less expensive, and more convenient for residents to engage in healthy behaviors. Policy and environmental changes that increase the availability and accessibility of healthy foods or limit access to unhealthy foods can make it easier and more convenient for residents to adopt and maintain healthy eating habits. Changes to the physical environment can make it easier and safer for all residents to access opportunities for physical activity.

Communities can also reach out to a large number of residents through community programs that can provide residents with knowledge, skills, and opportunities necessary to make healthy choices and adopt healthy behaviors. Community interventions are particularly useful in reaching high-risk groups, such as economically disadvantaged, disabled, rural, and racial and ethnic minority populations, with local, low-cost, culturally and linguistically appropriate programs and resources.

## Short-term Objectives in Communities

\* Denotes community objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity Communities Action Plan (Appendix D3)*.

## Community Access to Healthy Foods (CAF)

**Objective CAF1: By 2008, increase the number of communities that have Farmers' Markets or farm stand programs.\* §**

### Proposed Partners

Farm Fresh Rhode Island; RI Division of Agriculture; Tourtellot & Co. Inc.; Johnson & Wales' International Culinary Institute; URI Cooperative Extension Program; URI Food Stamp Nutrition Education Program; URI Food, Hunger & Nutrition Partnership; RI Center for Agricultural Promotion and Education; Minority Health Promotion Centers; HEALTH's WIC Program

### Sample Strategies

- Develop and distribute Farmers' Market and farm stand tool kits that include hands-on nutrition education and demonstration ideas and nutrition education materials.
- Provide training and technical assistance for communities to use in implementing Farmers' Market and farm stand programs.
- Explore alternatives to farmers staffing markets (e.g., food distributors deliver fresh produce to community-based organizations, such as senior centers and Minority Health Promotion Centers).
- Publicize the Farmers' Markets and farm stand programs.
- Assist Farmers' Markets with acceptance of Electronic Benefit Transfer cards.

**Objective CAF2: By 2008, increase the number of communities that have farm-to-institution programs.\***

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; Farm Fresh Rhode Island; RI Division of Agriculture; Tourtellot & Co., Inc; Johnson & Wales' International Culinary Institute; URI Cooperative Extension Program; URI Food Stamp Nutrition Education Program; URI Food, Hunger & Nutrition Partnership; RI Center for Agricultural Promotion and Education; Minority Health Promotion Centers; RI Food Bank

Sample Strategies

- Support legislation to provide tax incentives for businesses that purchase local produce.
- Provide training and technical assistance for institutions regarding purchasing local produce.
- Create a centralized warehouse for the redistribution of locally grown foods to area institutional kitchens.
- Build relationships with farms and food-processing industries, such as carrot peelers, milk processors, cheese factories, produce transporters, and spaghetti sauce makers.
- Develop incentives that encourage these industries to remain in Rhode Island.
- Offer resources that will encourage farmers and food producers to form cooperative entities, such as grant writing assistance, facilitation services, meeting spaces, and stipends for visiting other producer-cooperative models.

**Objective CAF3: By 2008, increase the number of communities that provide enhanced transportation options to get residents to markets that provide affordable fruits and vegetables or to get fruits and vegetables to residents.\***

Proposed Partners

Farm Fresh Rhode Island; RI Division of Agriculture; Tourtellot & Co., Inc.; RI Department of Transportation; HEALTH's WIC Program; senior centers; Congregate Meal Sites; Meals on Wheels Program; Senior Citizens Farmers' Market Program; URI Cooperative Extension Program; URI Food Stamp Nutrition Education Program; URI Food, Hunger & Nutrition Partnership; RI Center for Agricultural Promotion and Education; Minority Health Promotion Centers

Sample Strategies

- Explore alternative ways of getting healthy foods to low-income residents throughout the state and throughout the year.
- Establish "Grocery Bus Routes" or "Farmers' Market Bus Routes" that offer reduced fares on certain days to bring residents in low-income communities to grocery stores that offer greater selections of affordable healthy food.
- Develop and distribute nutrition education materials and coupons.
- Provide transportation for seniors to and from Farmers' Markets where they can use Farmers' Market coupons.

- Implement mobile markets, such as a traveling produce truck.

**Objective CAF4: By 2008, increase the number of communities that offer financial and/or regulatory incentives to small neighborhood grocery and convenience stores to expand their inventory to include healthier food items.\* §**

Proposed Partners

URI Food Stamp Nutrition Education Program; URI Partnership on Food, Hunger & Nutrition; grocers; Farm Fresh Rhode Island; town councils

Sample Strategies

- Develop and implement incentives to encourage small neighborhood grocery and convenience stores to expand their selection of healthy foods and beverages.
- Develop a "locally grown" certification or labeling system that includes marketing and promotional materials.
- Provide technical assistance to small neighborhood grocery and convenience stores to expand healthy food and beverage selections.
- Promote local produce to reduce middleman costs.
- Promote collaboration among small neighborhood grocery and convenience stores to leverage collective buying power.
- Promote small neighborhood markets and convenience stores that provide healthy food and beverage selections.
- Connect small neighborhood grocery and convenience stores with small business development resources.

**Objective CAF5: By 2008, increase the number of communities that offer financial and/or regulatory incentives to attract supermarkets or other large food outlets to their communities. §**

Proposed Partners

URI Food Stamp Nutrition Education Program; URI Partnership on Food, Hunger & Nutrition; grocery store owners; Farm Fresh Rhode Island; RI Food Bank; local planners; town council representatives; community development corporations

Sample Strategies

- Develop incentives to attract large grocery stores to underserved communities.
- Provide technical assistance and toolkits to community leaders and planners in underserved communities to assist them in developing and providing incentives and programs.
- Educate community leaders about the benefits of new grocery store development, such as revitalization of communities, creation of new jobs, and greater local sales tax revenue.
- Educate grocers about the benefits of relocating to underserved communities.
- Assist grocery stores in identifying and securing a site and obtaining financing.
- Encourage grocers to partner with community groups to assist in recruitment and training of employees.

- Assist grocery stores in cultivating relationships with local suppliers.
- Advocate for assistance to help negotiate zoning and regulatory issues and to assist with financing.

**Objective CAF6: By 2008, increase the number of communities that have community garden programs. §**

Proposed Partners

RI Center for Agricultural Promotion and Education; Southside Community Land Trust; KIDS FIRST, Inc.; Farm Fresh Rhode Island; Grow Smart RI; URI Master Gardeners Program; RI Statewide Planning Program; town councils; local planners

Sample Strategies

- Assist communities in designating specific areas, such as vacant lots and open space, to be converted into "food producing" zones.
- Advocate for changing the real estate tax structure to encourage individual and community food-producing gardens in the city.
- Develop a community garden toolkit to help local communities clean up brownfields and reclaim vacant land for community gardens.
- Disseminate toolkit to interested communities.
- Provide training, technical assistance, and resources to communities regarding use of toolkit.

**Objective CAF7: By 2008, increase the number of local planning agencies that include food access needs in their planning, zoning, and development processes.\***

Proposed Partners

Grow Smart RI; local planners; RI Statewide Planning Program

Sample Strategies

- Educate local planners about the need to consider food access needs in planning, zoning, and development processes.
- Provide training, technical assistance, and resources to local planners regarding how to meet food access needs.
- Develop a toolkit and disseminate to planning agencies to address food access needs.

**Objective CAF8: By 2008, increase the number of full-service and fast food restaurants that provide healthy food and beverage options.\* §**

Proposed Partners

RI Restaurant Association; RI Chefs' Association; Johnson & Wales' International Culinary Institute; RI Tourism Association; Chambers of Commerce; KIDS FIRST, Inc.; RI Healthy Schools Coalition; New England Dairy Council



### Sample Strategies

- Develop and implement a Restaurant Award Program that recognizes restaurants that provide healthy food and beverage options. §
- Develop and disseminate a healthy restaurant toolkit.
- Provide training on attractively merchandising and aggressively marketing fresh fruits and vegetables in season, and creating exciting and tasty fruit and vegetable appetizers, entrees, and desserts.
- Develop a training program that involves chefs in helping identify key culinary techniques, flavor approaches, and menu strategies to put more fruits and vegetables in front of the customers.
- Encourage trial of fruit and vegetable offerings through taste tests, discount coupons, and direct mail for fruit and vegetable rich menu items.
- Advocate for the inclusion of fruit and vegetables as part of value meals in place of low-nutrition options.
- Advocate for the inclusion of more fruits and vegetables (non-fried) as part of children's menus and offerings.

**Objective CAF9: By 2008, increase the number of full-service and fast food restaurants that provide calorie and key nutrient information at point of purchase. §**

### Proposed Partners

RI Restaurant Association; RI Chefs' Associations Johnson & Wales' International Culinary Institute; RI Tourism Association; Chambers of Commerce; KIDS FIRST, Inc.; New England Dairy Council; Farm Fresh Rhode Island

### Sample Strategies

- Develop and disseminate toolkit to assist restaurants in providing calorie and key nutrient information at point of purchase.
- Provide technical assistance and training to restaurant owners to assist them in providing calorie and key nutrient information at point of purchase.
- Advocate for a statewide policy requiring full disclosure of nutrition information at point of purchase at full-service and fast food restaurants.
- Develop a "locally grown" certification or labeling system that includes marketing and promotional materials.
- Develop and implement an award program that recognizes restaurants that provide calorie and key nutrient information at point of purchase.

**Objective CAF10: By 2008, increase the number of communities that pass ordinances limiting the density of fast food restaurants.**

### Proposed Partners

District Wellness Subcommittees; legislators; RI Healthy Schools Coalition; town planners; RI Statewide Planning Program; Grow Smart RI; parent teacher associations; town councils

### Sample Strategies

- Advocate for ordinances that limit the density of fast food restaurants in a given area.
- Educate decision makers and community members about the need for these regulations and the link between fast food restaurant density and obesity.
- Provide model ordinances for consideration.
- Develop a media campaign and/or utilize media advocacy to educate the public about the link between fast food outlets and obesity.

**Objective CAF11: By 2008, increase the number of grocery stores that have in-store promotions of healthy foods. §**

### Proposed Partners

Johnson & Wales' International Culinary Institute; URI Food Stamp Nutrition Education Program; URI Cooperative Extension Program; Farm Fresh Rhode Island; KIDS FIRST, Inc., New England Dairy Council; Tourtellot & Co., Inc.; grocers

### Sample Strategies

- Develop training for retail associates on retail quality and freshness, handling, storage, health benefits, and consumer education through fruit and vegetable messages.
- Share best practices within the industry on effective fruit and vegetable marketing activities, including:
  - Industry media, marketing, and promotional strategies, such as coupons, cross product marketing, loyalty marketing, sales events, billboards, and radio to promote increased consumption of fruits and vegetables.
  - Integrated produce department promotions, such as point of sale materials, periodic samplings, recipe demonstrations, give-aways, discounting, and recipe cards implemented over a reasonably long period of time (e.g., more than three months).
  - Providing convenient, ready-made meals or meal solutions for shoppers that include an abundance of fruits and vegetables (e.g., pre-cut fruits and vegetables).
- Develop a "locally grown" certification or labeling system that includes marketing and promotional materials.
- Develop and implement a grocery store award program that recognizes grocers who conduct in-store promotions of healthy foods.

**Objective CAF12: By 2010, increase the number of public settings (e.g., parks, stores, restaurants and entertainment venues) with breastfeeding-friendly environments.**

### Proposed Partners

RI Breastfeeding Coalition; La Leche League of Rhode Island; HEALTH's Breastfeeding Coordinator

### Sample Strategies

- Promote the establishment of breastfeeding-friendly environments in community settings.
- Develop and disseminate best practice guidelines and resources for communities to establish breastfeeding-friendly environments.
- Develop mechanism to recognize breastfeeding-friendly environments.

## Community Access to Physical Activity (CAP)

**Objective CAP1: By 2008, increase the number of communities that have new or revitalized parks or trails.\* §**

### Proposed Partners

Greenways Alliance of Rhode Island; RI Department of Transportation; RI Statewide Planning Program; local planners; RI Department of Environmental Management; Sierra Club; Parks and Recreation Departments; HEALTH's Safe Rhode Island Program; HEALTH's Disability and Health Program

### Sample Strategies

- Educate decision makers and residents about the importance of maintaining, developing, or connecting trails.
- Develop and disseminate model regulations for community comprehensive plans that include the conservation of open space and the building and maintenance of parks and trails. §
- Educate community groups about maintaining parks and trails.
- Link facilities to ongoing programs and organizations for continued support.
- Identify non-traditional recreation spaces, such as farmland and schools, and encourage owners to open areas to the public. §
- Advocate for parks and trails that are accessible to people with disabilities.
- Develop a Governor's Innovative Practices award program that recognizes communities that build or revitalize parks and trails.
- Identify funding for park and trail renovations and park-based programs.
- Develop a campaign to raise awareness of the state's parks and trails.
- Sponsor park clean ups.
- Publicize renovations and new facilities.

**Objective CAP2: By 2008, increase the number of communities that have land management systems that support physical activity.\* §**

### Proposed Partners

RI Statewide Planning Program; RI Department of Transportation; Grow Smart RI, Sierra Club; local planners

### Sample Strategies

- Present at community meetings about the link between the built environment and health and the economic benefits of well-planned communities.
- Educate decision makers about the benefits of smart growth and how it can be accomplished.
- Publicize decisions or initiatives that may affect physical activity and encourage residents to get involved in decision making.
- Develop and disseminate model comprehensive plans and other best practices.
- Develop a Governor's Innovative Practices award program that recognizes communities for adopting policies that support physical activity.

- Support tax incentives for smart growth development.
- Educate schools and decision makers about school siting issues.
- Highlight model communities and successes.

**Objective CAP3: By 2008, increase the number of communities that complete bicycle and pedestrian improvement projects.\* §**

Proposed Partners

RI Statewide Planning Program; RI Department of Transportation; Grow Smart RI; Sierra Club; local planners; HEALTH's Safe Rhode Island Program; HEALTH's Rural Health Program

Sample Strategies

- Present at town meetings, chamber of commerce meetings, and parent teacher organization meetings about the health and economic benefits of walkable communities.
- Educate communities about options for improving walkability in rural areas.
- Publicize decisions or initiatives that may affect physical activity and encourage residents to get involved in decision making, from planning through implementation.
- Hold walkable community workshops to educate and inform communities about suggested improvements and potential funding opportunities.
- Advocate for pedestrian facilities that are accessible to people with disabilities.
- Develop a Governor's Innovative Practices award program that recognizes communities that complete bicycle and pedestrian improvements.
- Develop a system to disseminate success stories to partners and residents.

## Community Programs (CP)

**Objective CP1:**      **By 2008, increase the number of communities and community-based organizations that provide culturally and linguistically appropriate obesity prevention and/or weight management programs that teach hands-on cooking and meal planning skills.\* §**

### Proposed Partners

Diabetes Multicultural Coalition; URI Cooperative Extension Service; URI Food Stamp Nutrition Education Program; Johnson & Wales International Culinary Institute; Minority Health Promotion Centers; YMCA; KIDS FIRST, Inc.; community-based organizations; faith-based organizations; HEALTH's WIC Program

### Sample Strategies

- Advocate for new or expanded programs in Minority Health Promotion Centers, faith-based organizations, YMCA, Meals on Wheels and Congregate Meal Programs for the elderly, WIC agencies, and other community-based organizations.
- Identify existing successful programs in Rhode Island that could serve as models for other organizations.
- Adapt existing programs to be culturally and linguistically appropriate for the populations being served.
- Develop and disseminate toolkits that include model programs and funding opportunities for community-based organizations.
- Provide ongoing staff training on program development, adaptation, and implementation.
- Provide technical assistance on selection and implementation of programs.
- Expand training of existing peer counselors, such as Diabetes Information and Referral Specialists.
- Assist in identifying funding and staff to implement programs.
- Advocate for changes to the Food Stamp Nutrition Education Program to increase federal funding through matching.

**Objective CP2:**      **By 2008, increase the number of communities that have free or low-cost opportunities for structured physical activity.\* §**

### Proposed Partners

Minority Health Promotion Centers; YMCA; community-based organizations; private fitness centers; community centers; Salvation Army; faith-based organizations; schools; HEALTH's Disability and Health Program

### Sample Strategies

- Develop and disseminate model programs to community-based organizations including lay physical activity trainer programs, walking clubs, pedometer programs, and park-based programs.
- Assess accessibility of existing resources.
- Provide training and technical assistance to community-based organizations on selection and implementation of programs, and working with people with disabilities.
- Advocate for facilities and programs that are accessible to people with disabilities.
- Develop promotional campaigns to publicize programs.

**Objective CP3:**      **By 2008, all local Women, Infants, and Children (WIC) agencies will implement a breastfeeding peer counselor program and all local WIC agency staff will receive training to provide competent breastfeeding support.**

### Proposed Partners

Local WIC agencies; RI Breastfeeding Coalition; HEALTH's Breastfeeding Coordinator

### Sample Strategies

- Develop and implement peer counselor programs and protocols.
- Provide WIC staff with multicultural tools and resources for working with breastfeeding mothers.
- Provide technical and advocacy assistance in breastfeeding to WIC staff.
- Train WIC nutritionists and breastfeeding peer counselors as Certified Lactation Counselors (CLCs).
- Provide information on becoming International Board Certified Lactation Consultants (IBCLCs) to WIC nutritionists and peer counselors.
- Provide technical support and training opportunities to pursue IBCLC certification to WIC nutritionists and peer counselors.

**Objective CP4:**      **By 2008, increase the number of local WIC agencies that implement breast pump distribution programs, policies and environments that support breastfeeding mothers.\***

### Proposed Partners

Local WIC agencies; HEALTH's Breastfeeding Coordinator; private breast pump distributors

### Sample Strategies

- Advocate for the increased availability of breast pumps through WIC local agencies.
- Assist in implementing a breast pump distribution program through WIC local agencies.
- Identify potential funding sources for a breast pump distribution program.
- Train local WIC agency staff on pump distribution programs and education.

- Develop a statewide policy for breast pump distribution through the local WIC agencies.
- Develop breast pump distribution policies, protocols, and training materials for WIC staff and pumping clients.
- Provide ongoing technical assistance to WIC agencies regarding breast pump program.
- Develop and implement state WIC breastfeeding policies and guide local agencies in developing breastfeeding policies.
- Provide technical assistance in the establishment of breastfeeding-friendly clinic environments including space for mothers to breastfeed.

**Objective CP5:       By 2008, increase the number of community-based organizations that have policies or programs to reduce screen time.\***

Proposed Partners

YMCA; community-based organizations; faith-based organizations; parent teacher organizations

Sample Strategies

- Develop or adapt and disseminate model screen time reduction programs, practices, and guidelines.
- Provide leader trainings for staff implementing model programs.
- Develop and supply toolkit for TV Turnoff week.
- Develop a campaign to promote TV Turnoff Week.



## Healthcare (H)

Healthcare providers, health insurers, professional organizations, health professional schools and accrediting organizations have a critical role to play in the prevention and control of overweight and obesity.

Approximately 80% of the US population sees a physician at least once a year.<sup>269</sup> During these interactions, physicians and other healthcare providers are in a unique position to influence the health behaviors of their patients and their families. As advisors to children and adults, healthcare providers have the authority to elevate patient concern about obesity and can make recommendations on nutrition, breastfeeding, physical activity and screen time. Professional schools, postgraduate training programs, and continuing medical education programs offer an opportunity to provide up-to-date information and training to ensure that healthcare providers have the knowledge, skills and confidence necessary to provide obesity prevention assessment, counseling, and treatment.

Based on the Census 2000, Rhode Island has a population of 1,048,319. Approximately 36% percent of the population is insured by one of the three commercial health insurers in Rhode Island. Eleven percent of the population is enrolled in Rlte Care (RI's Medicaid managed care program), 6% in Medicare, and 12% of RI men and women, ages 18-64 years, are uninsured.<sup>270</sup> As there are no local health departments in Rhode Island, 12 community health centers in 28 locations in RI's 36 cities and towns, essentially provide the public health infrastructure for the state.

The RI healthcare system plays a vital role in ensuring access to obesity prevention services by increasing coverage for nutrition and physical activity counseling, lactation support services, and breastfeeding equipment.

### Short-term Objectives in Healthcare

\*Denotes healthcare objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Collaborative* at its first summit in June 2006.

**Objective H1:**            **By 2008, increase the number of healthcare providers who assess nutrition and physical activity and provide culturally and linguistically appropriate counseling about healthy eating and physical activity at annual preventive visits.\***

#### Proposed Partners

New England Coalition for Health Promotion and Disease Prevention (NECON); professional licensing boards and associations; hospitals; commercial insurers; private practices; RI Health Center Association; Rlte Care (RI Medicaid managed care) providers; Medicare providers; HEALTH's Diabetes Prevention and Control Program; RI Chronic Care Collaborative; Quality Partners of Rhode Island; Brown University Medical School; nursing programs

#### Sample Strategies

- Participate in NECON's pilot reimbursement and physician training program, featuring a web-based clearinghouse, a self-study, Continuing Medical Education program for healthcare providers, and an insurer reimbursement and quality control component.

- Advocate for medical and allied health schools and continuing medical education to include training on obesity assessment, counseling, and treatment using the CLAS Standards (**Appendix F**).
- Develop and disseminate clinical guidance materials on obesity prevention and nutrition and physical activity assessment and counseling to healthcare providers.
- Establish minimum competencies for obesity prevention and weight management for healthcare providers.
- Advocate for the adoption of competencies and changes to the existing licensing, registration, and certification procedures.
- Advocate for health insurers, health plans, and quality improvement and accrediting organizations to include obesity screening and prevention services in routine clinical practice and in quality assessment measures.

**Objective H2:**        **By 2008, increase the number of healthcare providers who refer patients with unhealthy eating patterns to nutritionists and who refer patients with low physical activity levels to community resources.\***

#### Proposed Partners

NECON; professional licensing boards and associations; hospitals; commercial insurers; private practices; RI Health Center Association; RIte Care providers; Medicare providers; HEALTH's Diabetes Prevention and Control Program; RI Chronic Care Collaborative; Quality Partners of Rhode Island; Brown University Medical School; nursing programs

#### Sample Strategies

- Develop and disseminate obesity prevention referral guidelines.
- Develop and disseminate a directory of RI nutrition and physical activity resources.
- Develop an online resource directory, and cross link with partner websites.
- Provide training for healthcare providers regarding referral guidelines, best practices, and the CLAS Standards (**Appendix F**).
- Provide ongoing technical assistance in the implementation of referral guidelines.
- Post/link directory of RI nutrition and physical activity resources to partner websites and update annually.

**Objective H3:**        **By 2008, increase the number of healthcare providers who routinely measure height and weight, calculate Body Mass Index (BMI), and provide feedback and interpretation of BMI to patients at annual preventive visits.\***

#### Proposed Partners

NECON; professional licensing boards and associations; hospitals; commercial insurers; private practices; RI Health Center Association; RIte Care providers; Medicare providers; HEALTH's Diabetes Prevention and Control Program; RI Chronic Care Collaborative; Quality Partners of Rhode Island; Brown University Medical School; nursing programs

### Sample Strategies

- Establish minimum competencies in BMI measurement and counseling.
- Advocate for the adoption of competencies.
- Advocate for the changes to the existing licensing, registration, and certification procedures.
- Advocate for BMI to be reported as a vital sign in the New England region.
- Advocate for the inclusion of BMI assessment and counseling in the curricula and examinations of healthcare professional schools, postgraduate training programs, continuing professional education programs, professional organizations, and certifying entities.
- Participate in NECON's pilot reimbursement and physician training program, featuring a web-based clearinghouse, a self-study, Continuing Medical Education program for healthcare providers, and an insurer reimbursement and quality control component.
- Advocate for insurers to track BMI in charts as a quality control measure.

**Objective H4:**      **By 2008, increase the number of health insurers that reimburse physicians, nurses, and nutritionists for routine Body Mass Index (BMI) assessment, interpretation, and feedback, and for counseling regarding nutrition and physical activity.\***

### Proposed Partners

NECON; professional associations; commercial insurers; RIte Care providers; Medicare providers; HEALTH's Diabetes Prevention and Control Program; RI Chronic Care Collaborative; Quality Partners of Rhode Island

### Sample Strategies

- Participate in NECON's pilot physician training and reimbursement program.
- Advocate for mandatory insurance coverage for obesity prevention services, weight management programs, and nutrition and physical activity counseling.
- Educate insurers about costs and benefits of reimbursement.
- Advocate for health insurers, health plans, and quality improvement and accrediting organizations to include obesity screening and prevention services in routine clinical practice and in quality assessment measures relating to healthcare.

**Objective H5:**      **By 2008, increase the number of health insurers that discount insurance premiums for employers offering obesity prevention and/or weight management programs.\***

### Proposed Partners

Governor's Wellness Initiative; WWCRI; NECON; Blue Cross Blue Shield of Rhode Island; United Healthcare; Neighborhood Health Plan of Rhode Island; Quality Partners of Rhode Island

### Sample Strategies

- Educate insurers about the costs and benefits of obesity prevention and weight management programs.
- Promote discounted premiums with employers.

**Objective H6:**        **By 2012, all maternity care hospitals will implement at least five of the Baby-Friendly Hospital Initiative's *Ten Steps to Successful Breastfeeding*.\***

### Proposed Partners

RI Breastfeeding Coalition; Physicians' Committee for Breastfeeding in Rhode Island; maternity care hospitals; HEALTH's Breastfeeding Coordinator; South County Hospital; Newport Hospital; Boston Medical Center

### Sample Strategies

- Promote *Ten Steps to Successful Breastfeeding* to hospitals and affiliated providers.
- Promote the Baby-Friendly Hospital Initiative to all birthing hospitals not yet certified.
- Monitor hospital responses regarding adoption of the Baby-Friendly Hospital Initiative.
- Provide technical support to hospitals interested in initiating the Baby-Friendly Hospital Initiative certification process.
- Utilize hospital boards, administrators, and affiliated physicians from Baby-Friendly certified hospitals for approval and support.

**Objective H7:**        **By 2010, increase the number of maternity care hospitals that are designated as Baby-Friendly in accordance with the United Nations Children's Fund (UNICEF) and World Health Organization's Baby-Friendly Hospital Initiative.**

### Proposed Partners

RI Breastfeeding Coalition; Physicians' Committee for Breastfeeding in Rhode Island; maternity care hospitals; HEALTH's Breastfeeding Coordinator; South County Hospital; Newport Hospital; Boston Medical Center

### Sample Strategies

- Promote *Ten Steps to Successful Breastfeeding* to hospitals and affiliated providers.
- Promote the Baby-Friendly Hospital Initiative to all birthing hospitals not yet certified.
- Monitor hospital responses regarding adoption of the Baby-Friendly Hospital Initiative.
- Provide technical support to hospitals interested in initiating the Baby-Friendly Hospital Initiative certification process.
- Utilize hospital boards, administrators, and affiliated physicians from Baby-Friendly certified hospitals for approval and support.

**Objective H8:**            **By 2010, all health insurers will increase their standard, reimbursable service coverage for lactation support services, breastfeeding classes, and breastfeeding equipment.\***

Proposed Partners

Physicians' Committee for Breastfeeding in Rhode Island; RI Breastfeeding Coalition; maternity care hospitals; Blue Cross Blue Shield of Rhode Island; United Healthcare; Neighborhood Health Plan of Rhode Island; HEALTH's Breastfeeding Coordinator

Sample Strategies

- Advocate for enhanced coverage of breastfeeding services and equipment.
- Provide technical support for insurers to provide additional breastfeeding benefits.
- Identify and enhance ways that insurers notify consumers and providers about benefits, such as subscriber education packets, subscriber newsletters, magazines, and physician bulletins.
- Promote the RI Breastfeeding Coalition and the Physicians' Committee for Breastfeeding in Rhode Island as experts for consultation on breastfeeding issues.
- Update benefit criteria grid biannually.

**Objective H9:**            **By 2008, increase the number of maternal and child healthcare providers who become Certified Lactation Counselors.**

Proposed Partners

RI Breastfeeding Coalition; HEALTH's Breastfeeding Coordinator; Local WIC agencies; birthing hospitals; healthcare organizations

Sample Strategies

- Coordinate, promote, and conduct CLC trainings for up to 75 local healthcare professionals annually.

**Objective H10:**        **By 2012, culturally-appropriate, evidence-based breastfeeding training will be integrated into continuing education requirements for all maternal and child health nurses and into the curriculum at all health professional schools.**

Proposed Partners

RI Breastfeeding Coalition; Physicians' Committee for Breastfeeding in Rhode Island; HEALTH's Breastfeeding Coordinator; medical schools; nursing schools; accrediting organizations

### Sample Strategies

- Evaluate existing education available through medical and nursing schools, and accreditation requirements related to breastfeeding.
- Develop training recommendations for educational institutions and certifying recommendations for accrediting organizations using the CLAS Standards (**Appendix F**).
- Provide technical assistance to partners to maintain accreditation standards.

**Objective H11:**      **By 2008, implement a system that enables breastfeeding mothers to receive in-home lactation consultation with International Board Certified Lactation Consultants.**

### Proposed Partners

HEALTH's Breastfeeding Coordinator; HEALTH's Family Outreach Program; Visiting Nurse Agencies

### Sample Strategies

- Institute home IBCLC visits for mothers receiving lactation referrals from home visiting nurses.
- Train Visiting Nurse Agency nurses as CLCs.
- Provide funding for Visiting Nurse Agency nurses to take the IBCLC exam.
- Provide technical assistance and support to Visiting Nurse Agencies to develop and implement a referral protocol for IBCLC home visits.

**Objective H12:**      **By 2010, increase the number of maternity care hospitals, private clinical practices, and commercial pharmacies that implement an online breastfeeding pharmacology program.**

### Proposed Partners

Physicians' Committee for Breastfeeding in Rhode Island; URI School of Pharmacy; commercial pharmacies; RI Pharmacists' Association; CVS Headquarters; HEALTH's Breastfeeding Coordinator

### Sample Strategies

- Educate partners about breastfeeding.
- Promote the widespread use of Thomas Hale's *Medications and Mother's Milk* resource guide and online breastfeeding pharmacology resources.
- Work with URI to take on breastfeeding pharmacology as a clinical project and to integrate use of Hale's resource guide into the curriculum.
- Provide and distribute *Medication and Mother's Milk* books to all CVS pharmacies.
- Promote breastfeeding pharmacology and education.

**Objective H13:**        **By 2012, increase the number of maternity care hospitals, public health clinics, and facilities that implement policies that ban the use of informational and educational materials provided by or bearing the logos of infant formula manufacturers.**

Proposed Partners

RI Breastfeeding Coalition; Physicians' Committee for Breastfeeding in Rhode Island; professional associations; HEALTH's Breastfeeding Coordinator

Sample Strategies

- Advocate for enforcement of the WHO Code for the Marketing of Breast Milk Substitutes.
- Educate hospital administrators, public health clinic administrators, and private physicians about the negative effect of formula marketing on breastfeeding rates and duration.
- Provide technical assistance to facilities to assist them in implementing the WHO Code.
- Publicly recognize facilities that comply with the WHO Code.

**Objective H14:**        **By 2008, improve access to culturally-appropriate mental health and behavioral services across the lifespan to break the cycle of obesity associated with depression, anxiety, and related disorders.\***

Proposed Partners

District Wellness Subcommittees; HEALTH and RIDE's Coordinated School Health Program; RI Healthy Schools Coalition; WWCRI; Minority Health Promotion Centers; HEALTH's Office of Primary Care; RI Health Center Association; RI Chronic Care Collaborative; commercial insurers; Quality Partners of Rhode Island; RIte Care providers; Medicare providers; commercial healthcare providers

Sample Strategies

- Provide education for parents, coaches, teachers, school nurses, and guidance counselors on the identification of eating disorders.
- Identify or develop best practices for the identification and appropriate referral of people with depression, anxiety, and/or eating disorders.
- Disseminate information about depression, anxiety, and eating disorders, including health risks, warning signs, referral protocols, and confidentiality to schools, worksites, senior centers, and other community partners.
- Include mental health and behavioral services in the RI nutrition and physical activity resource directory.
- Update resource directory annually and cross link with partner websites.

## Worksites (W)

Worksites provide a unique opportunity to reach a large number of adults and to reinforce and promote healthy behaviors. Many employees spend 40 or more hours a week at work and, while there, many are sedentary and have limited access to healthy foods. Breastfeeding support services at worksites are also often less than ideal. Worksites provide an underutilized opportunity to improve nutrition, increase physical activity, and increase breastfeeding rates.

Promoting and facilitating healthy eating and active living at work is an excellent investment for employers. Over time, it saves costs from diet-related diseases and lost productivity while boosting overall employee health and morale.<sup>271</sup> Providing accommodations and support for breastfeeding mothers offers tremendous rewards for the employer in cost savings for healthcare, reduced absenteeism, employee morale, and employee retention. Whether through a broad worksite wellness program or through individual policy changes or specific initiatives, employers can create a workplace environment that promotes healthy eating, active living, and breastfeeding.

## Short-term Objectives in Worksites

Denotes worksite objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Collaborative* at its first summit in June 2006.

**Objective W1:**        **By 2008, increase the number of worksites that implement multi-component weight management programs that include both physical activity and nutrition.\***

### Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; Minority Health Promotion Centers; YMCA; Chambers of Commerce; Blue Cross Blue Shield of Rhode Island; United Healthcare; Neighborhood Health Plan of Rhode Island; HEALTH's Disability and Health Program

### Sample Strategies

- Identify existing successful worksite wellness programs that include training in behavioral techniques; support groups; prescriptions for aerobic/strength training exercise; provision of self-help materials; tailored educational materials; group or supervised exercise sessions that are accessible to all employees.
- Develop and disseminate toolkits that include model programs, resources, and funding opportunities for partners.
- Provide training and technical assistance in program development and implementation.
- Assist worksites in launching healthy eating and active living campaigns.
- Develop a Governor's Innovative Practices award program that recognizes worksites for worksite wellness programs.
- Assist in the development of a program promotion plan.



**Objective W2:**            **By 2008, increase the number of worksites that provide healthy food options for employees in the cafeteria and in vending machines.\***

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; KIDS FIRST, Inc.; Farm Fresh Rhode Island; Johnson & Wales' International Culinary Institute; Minority Health Promotion Centers

Sample Strategies

- Develop and disseminate state nutrition guidelines for worksites.
- Develop and disseminate strategies to encourage the sale of fruits and vegetables in vending machines.
- Develop a Governor's Innovative Practices award program that recognizes worksites for offering healthy foods.
- Educate employers about providing a wide variety of fruits and vegetables in cafeterias.
- Provide training and technical assistance for worksite cafeteria staff regarding healthy meal options.
- Develop a promotion plan for culturally-diverse, healthy meal options at worksites.
- Identify vendors who sell healthy vending products and invite worksites to Healthy Food Trade Shows.
- Share information with worksites regarding ways to partner with local farmers.
- Encourage worksites to provide a wide variety of fruits and vegetables in cafeterias and vending machines and at company functions and meetings.
- Use state employee worksite interventions as models for worksites throughout the state.
- Encourage worksites to subsidize produce in vending machines and cafeterias by charging a premium on less nutritious items.
- Develop and disseminate model fruit and vegetable worksite initiatives that include activities which create awareness, motivation, social support, and increased availability of fruits and vegetables.

**Objective W3:**            **By 2008, increase the number of worksites that have healthy food and beverage policies for worksite functions, meetings, and events.\***

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; KIDS FIRST, Inc.; Farm Fresh Rhode Island; Minority Health Promotion Centers

Sample Strategies

- Develop and disseminate model policies for catering, events, and meetings.
- Provide training and technical assistance in the adaptation and implementation of policies.
- Encourage worksites to provide a wide variety of fruits and vegetables at worksite functions and meetings.

- Share information with worksites regarding ways to partner with local farmers.
- Develop a Governor's Innovative Practices award program that recognizes worksites for implementing health food policies.

**Objective W4: By 2008, increase the number of worksites that have Farmers' Markets or farm-to-worksite programs.\***

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; Minority Health Promotion Centers; District Wellness Subcommittees; RI Department of Environmental Management's Division of Agriculture; Farm Fresh Rhode Island; URI Cooperative Extension Program; URI Food Stamp Nutrition Education Program; Johnson & Wales' International Culinary Institute

Sample Strategies

- Recruit and identify worksites that might be interested in implementing Farmers' Markets or farm-to-worksite programs.
- Develop Farmers' Markets and farm-to-worksite toolkits.
- Provide training and technical assistance on how to implement Farmers' Markets or farm-to-worksite programs.
- Advocate for legislation that provides tax incentives for businesses to purchase local produce.
- Compile and disseminate culturally diverse recipes and nutrition education brochures for use at Farmers' Markets or in farm-to-worksite programs.
- Host fruit and vegetable tasting events at Farmers' Markets.
- Develop a Governor's Innovative Practices award program that recognizes worksites for promoting local produce.

**Objective W5: By 2008, increase the number of worksites that provide calorie and key nutrient information at point of purchase.**

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; Minority Health Promotion Centers; District Wellness Subcommittees; URI Cooperative Extension Program; URI Food Stamp Nutrition Education Program; Johnson & Wales' International Culinary Institute

Sample Strategies

- Provide training and ongoing technical assistance for food service providers at worksites regarding how to determine and post key nutrient information.
- Develop a Governor's Innovative Practices award program that recognizes worksites for providing nutrition information.
- Develop and disseminate a toolkit to assist worksites in providing nutrient disclosure.

**Objective W6:**            **By 2010, increase the number of worksites that have policies, programs, and environments that support breastfeeding mothers.\***

Proposed Partners

Governor's Wellness Initiative; Physicians' Committee for Breastfeeding in Rhode Island; HEALTH's Breastfeeding Coordinator; local businesses; Chambers of Commerce; HEALTH's Healthy Rhode Island 2010; WWCRI; Governor's Get Fit, Rhode Island!; Maternal and Child Health Bureau

Sample Strategies

- Identify community-based intervention programs for employer outreach to support breastfeeding in the workplace.
- Develop mechanism to recognize and promote breastfeeding-friendly worksites.
- Develop toolkit for local intervention programs to complement pending materials developed by the Maternal and Child Health Bureau.
- Test and adapt materials.
- Develop and implement plan to encourage employers to adopt intervention.
- Provide technical assistance and education to employers adopting intervention.
- Produce and distribute materials, and post on HEALTH's website.

**Objective W7:**            **By 2008, increase the number of worksites that have policies, programs, or facilities that support physical activity.\***

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; District Wellness Subcommittees; YMCA; local fitness centers

Sample Strategies

- Develop and disseminate worksite physical activity toolkit with model policies, best practices, and guidelines.
- Provide training on physical activity policies and programs at WWCRI's Wellness University.
- Develop a Governor's Innovative Practices award program that recognizes worksites for promoting physical activity.
- Provide ongoing technical assistance on program and policy selection and implementation.
- Identify onsite physical activity providers and promote to worksites.
- Identify funding resources for programs and facility renovations, such as lockers, bike racks, fitness equipment, and fitness centers.
- Advocate for tax incentives for worksites that provide fitness programs, fitness areas, or program reimbursements.

**Objective W8:**            **By 2008, increase the number of worksites that have policies, programs, or environments that encourage active transportation.**

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; Bike Downtown; Minority Health Promotion Centers; District Wellness Subcommittees

Sample Strategies

- Expand existing worksite coordinator guide and training.
- Replicate site coordinator model and expand materials to cover walking and bussing.
- Advocate for active transportation options or changes that would improve active transportation.
- Provide technical assistance in identifying and training active transport coordinators at worksites.
- Provide ongoing technical assistance to active transport coordinators.
- Provide worksites with education on the benefits of an active transportation coordinator.
- Showcase successful programs.
- Develop model policies and offer incentives such as parking buy backs, dress down days, discounted bus passes, etc.
- Provide active transportation coordinators with best practices, model policies, and guidelines.
- Link employers with RI Public Transportation Authority's worksite programs.
- Identify funding sources for bike racks, showers, and stipends for coordinators.
- Develop a social marketing campaign that depicts active transportation as fun, easy, popular, cost beneficial, and healthy.
- Advocate for housing incentives that encourage teachers to relocate to areas within one mile of their school.
- Develop a Governor's Innovative Practices award program that recognizes worksites for implementing active transportation policies or programs.

**Objective W9:**            **By 2008, increase the number of worksites that offer employee benefit plans that reduce the cost of physical activity programs.\***

Proposed Partners

Governor's Wellness Initiative; WWCRI; Governor's Get Fit, Rhode Island!; Blue Cross Blue Shield of Rhode Island; United Healthcare; Neighborhood Health Plan of Rhode Island; Minority Health Promotion Centers; District Wellness Subcommittees

### Sample Strategies

- Promote insurers existing benefit plans that reduce the cost of physical activity by educating employers about benefits of offering these plans at low cost, such as reduced sick time and increased productivity.
- Provide incentives to employers who make benefit plans that reduce the cost of physical activity available to employees.
- Develop a Governor's Innovative Practices award program that recognizes worksites for offering health benefit packages that include physical activity discounts.

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## Section 7: **Communication Objectives**

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## Communication for Obesity Prevention (C)

Communication is an essential component of obesity prevention efforts in Rhode Island. Clear, effective communication with partners, specific target audiences, and the general public can be used to build partnerships, raise awareness, shape public policy, and influence behavior change. Communications work could include:

- Communications planning and strategy development
- Qualitative and quantitative audience research
- Message and material development and pre-testing
- Website development and design
- Graphics design and production
- Event planning and implementation
- Media relations and campaigns
- Monitoring and evaluation of communication activities
- Training in health communication and media relations

For each objective, communication strategies will be identified as supporting strategies for specific nutrition, breastfeeding, physical activity, and screen time initiatives. By identifying communication strategies at this level, the Plan ensures that communication work is tailored to specific interventions and the wants and needs of specific audiences.

At the same time, certain general communication strategies support all objectives in the Plan and provide the foundation for moving obesity prevention efforts forward in the state. These overarching communication goals, objectives, and strategies around messaging, media, and communication systems are outlined below, with a reference to how specific communication strategies for nutrition, breastfeeding, physical activity, and screen time objectives fit within this overarching framework.

## Messages

Public health professionals, health organizations, and the media must work together to deliver consistent messages targeted to diverse audiences across all levels of the Socioecological Model. Regular and consistent messages encourage healthy behaviors and increase awareness of the need for policies and environments that support healthy behaviors. Messages can be distributed through educational and promotional materials, as well as incorporated into interventions and media activities.

Overarching messages will be used to guide the development and implementation of tailored messages to support nutrition, breastfeeding, physical activity, and screen time objectives in all five channels. Messages will be tailored based on the communication channel, the purpose of communicating the message, and the wants and needs of the audience.

**Goal 1:**                      **Ensure consistent messages about obesity, related risk factors, and obesity prevention programs, policies, and environmental changes.**

**Objective C1:**            **By 2008, increase the number of obesity prevention partners who use consistent messages about obesity, key behavioral risk factors, and obesity prevention programs, policies, and environmental supports in educational and promotional materials, media activities, and other intervention activities.\* §**

### Sample Strategies

- Develop, test, disseminate, and promote consistent overarching messages around obesity and related risk factors.
- Develop and disseminate an annual report of obesity prevention programs, policies, and environmental changes in the state.
- Provide training on the variety of communication channels available for reaching audiences with messages.



## Media

Media is a powerful tool and can play an influential role in promoting healthy behaviors. Media can provide visibility and credibility for the obesity issue, as well as help to reach different audiences in the state. Media strategies can be used to increase public awareness of the importance of healthy eating and active living and the need for supportive policies and environments—both critical steps in changing behaviors.

In regards to policy change, one particularly effective media strategy is media advocacy. Media advocacy combines media and community advocacy to advance policy initiatives, such as policy changes around issues of healthy eating and active living. Media advocates stimulate community involvement in defining policy initiatives and use community voices to engage key decision makers to influence the development of public policies. In relation to obesity prevention, media advocacy can be used to support policies in which all people can have equal access to environments that support healthy eating and active living.

The media activities outlined below provide a foundation for specific, tailored paid and unpaid media campaigns and activities supporting nutrition, breastfeeding, physical activity, and screen time objectives and strategies. Media is a necessary, but not sufficient element of a comprehensive intervention: Media alone will not change social norms or behavior, and a program, policy, or environmental change without media has no way to grab the public's attention and influence public opinion. Media campaigns and activities can be used to amplify local prevention efforts and create a positive impact in public health.

**Goal 2:                      Improve media coverage of obesity, related risk factors, and obesity prevention programs, policies, and environmental changes.**

**Objective C2:            By 2010, increase the amount of quality media coverage of obesity, key behavioral risk factors, and obesity prevention programs, policies, and environmental supports.\* §**

### Sample Strategies

- Conduct an assessment of media coverage of obesity, related risk factors, and obesity prevention programs, policies, and environmental changes.
- Develop and maintain partnerships with media.
- Develop resources for the media, such as fact sheets, newsletters, evergreen stories, e-media kit, and a calendar of observances and events.
- Create speakers bureau of media advocates.

**Objective C3:            By 2010, launch a statewide media campaign to promote healthy eating and active living.\* §**

### Sample Strategies

- Collaborate with other states to share resources and coordinate activities.
- Integrate campaign brand and messages into all communication activities.
- Utilize the social marketing approach to plan, implement, and evaluate the campaign.

## Communication Systems

Communication systems provide essential supportive infrastructure for programs, partners, and intervention activities. Tailored communication systems supporting physical activity, breastfeeding, screen time and nutrition objectives and strategies will be created in the context of overarching communication systems.

**Goal 3:**                      **Establish effective and diverse communication systems for obesity prevention partners to use to ensure quick dissemination of information.**

**Objective C4:**            **By 2008, increase the number of communication systems that allow obesity prevention partners to share information about obesity, key behavioral risk factors, and obesity prevention programs, policies, and environmental supports. §**

### Sample Strategies

- Develop, maintain and promote an obesity prevention website.
- Develop, maintain and promote an obesity partners listserv.
- Develop and disseminate a monthly obesity e-newsletter.
- Develop and maintain a clearinghouse for obesity prevention information and resources.
- Develop, maintain and promote a searchable, web-based, statewide directory of community programs and resources for obesity prevention.

\* Denotes communications objectives that were identified as priority objectives by *Rhode Island's Healthy Eating and Active Living Collaborative* at its first summit in June 2006.

§ See *Childhood Obesity Communications Action Plan (Appendix D4)*.

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## Section 8: **Data, Surveillance, and Evaluation Objectives**

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## Measuring Success

Accurate data are needed to guide the formation and assess the success of activities in the Plan. Progress toward the objectives and strategies outlined in the Plan will be measured by monitoring various data points related to the key behavioral risk factors and the prevalence of overweight, obesity, and obesity-related chronic disease. Over time, changes in behavioral outcomes, weight status, and chronic disease will show progress toward Plan objectives and suggest additional areas for interventions. As needed, additional surveillance system indicators will be selected based on the feasibility of data gathering, the validity of the measures, and relevance to reducing the prevalence of obesity.

## Existing Data Sources and Limitations to the Current System

There are a number of data sources that supply ongoing information to track the prevalence of obesity, its key behavioral risk factors, and resulting health consequences. However, a full complement of data to characterize the prevalence of overweight and obesity and the state of the key behavioral risk factors are lacking for every age group (**Table 8**).

### Infants

For infants, the most complete breastfeeding information comes from the RI Pregnancy Risk Assessment Monitoring System, RI Toddler Wellness Overview Survey (TWOS), and the National Survey of Children's Health (NSCH). The RI Pregnancy Risk Assessment Monitoring System asks whether respondents have ever breastfed, if they are still breastfeeding, and their barriers to breastfeeding. TWOS and NSCH ask if respondents ever breastfed, and the duration of breastfeeding. However, these instruments do not collect city and town level data. The Newborn Developmental Risk Screening System and WIC collect data by city and town, but they have other limitations. The Newborn Developmental Risk Screening System only collects information on breastfeeding initiation, not duration. WIC does collect breastfeeding duration information, but only for low-income women. No current data system captures breastfeeding initiation and duration for all infants on a local level. The National Immunization Survey (NIS) uses random-digit dialing to survey households with age-eligible children. The NIS collects information about breastfeeding initiation and duration (i.e., at 6 and 12 months). In addition to breastfeeding for infants, birth records, the NIS and the Newborn Developmental Risk Screening System collect birth weight.

### Preschoolers

For preschoolers, ages 1–4 years, TWOS estimates weight status for two year-olds only and does not characterize cities and towns. WIC measures weight status for children, ages 2–5 years, by cities and towns, but again this mechanism is only available for low-income women. No current data collection system characterizes weight status for all preschoolers. The NIS collects self-reported weight and height of children entering kindergarten and 7<sup>th</sup> grade. Currently, there is only trend data available for kindergarteners.

A very limited number of nutrition and screen time questions are asked of parents in TWOS and WIC, but these data sources omit physical activity, and do not characterize preschoolers at the city and town level for children of all socioeconomic positions.

### School-aged children

For school-aged children, self-reported weight and height are available through the Youth Risk Behavior Surveillance System (YRBS), SALT, and NSCH. Self or proxy reported height and

weights are associated with clear limitations to the recall of the respondent, biases of under-reporting weight for overweight participants, and biases of over-reporting weight for underweight participants. No current data system characterizes the weight and height status of school-aged children using measured weight and heights.

Nutrition, physical activity, and screen time are all addressed using self-reported surveys of YRBS, SALT and NSCH, but the questions are limited in scope and do not address the key behavioral risk factors of young school-aged children.

## **Adults**

For adults, weight and height are reported by individuals over the phone for the RI Behavioral Risk Factor Surveillance System (BRFSS) and the RI Health Interview Survey (HIS). Physical measurements of height and weight and full nutrient data collection are not conducted at the state level. Nationally, NHANES series collects this information to reflect the nation as a whole, but does not provide state or regional estimates.

Both BRFSS and HIS ask limited questions about nutrition and physical activity. BRFSS asks about intake of fruits and vegetables and leisure time physical activity, while the HIS queries about frequency of fast food consumption, availability of soda at home, and proximity of a park to the participant's home. NHANES addresses nutrition and physical activity but again, it does not provide state or regional data. The HIS collects information on the number of hours per day spent watching TV or playing videogames by children, ages 2-17 years, only.

Several data sources track obesity-related diseases. Data on the self-reported prevalence of high blood pressure, high blood cholesterol, type 2 diabetes, heart disease, stroke, and asthma come from BRFSS and HIS. RI hospital discharge and mortality data include fields for diabetes, hypertension, heart disease, and stroke—conditions associated with being overweight or obese. NHANES also collects obesity-related disease data.

In sum, the data collection systems in place do not:

- Adequately characterize the prevalence of overweight or obesity for any age group.
- Adequately describe information on nutrition, physical activity, screen time, or breastfeeding for applicable age groups.
- Provide estimates at the level of the city and town.
- Characterize obesity or key behavioral risk factors by major racial, ethnic, or socioeconomic group.

Enhancements to the current system, by augmenting current instruments or developing new surveillance systems, would better describe the state of overweight, obesity, key behavioral risk factors, and obesity-related diseases, especially by describing the geographic areas or demographic groups at highest risk. More importantly, an augmented system would provide better assessment of intervention projects.

**Table 8. Obesity-Related Datasets by Age Group**

Dataset	Age Group	Weight height	Behavioral Risk Factor				Obesity-Related Disease	Level of Specificity	Potential for Expansion	Limitations
			*Nutrition	Physical Activity	Screen Time	Breast-feeding				
Newborn Developmental Risk Screening	Newborn Infants	Measure				☑		City/Town		breastfeeding initiation only, not duration
RI Pregnancy Risk Assessment Monitoring System	Adult women of childbearing age					☑		National and State		No city/town data
Birth Records (from RI Vital Statistics)	Newborn Infants	Measure						City/Town		
National Immunization Survey	Children, ages 19–35 months	Self-report				☑		National and State		No city/town data
RI Toddler Wellness Overview Survey (TWOS)	Children, age 2 years	Self-report	☑		☑	☑		State		No city/town data; Only two-year olds; Limited number of nutrition & screen time questions
Women, Infants, and Children Supplemental Nutrition Program (WIC)	Children, ages 2–5 years	Measure	☑			☑		City/Town		Only available for low - income women; limited number of nutrition questions
Immunization Program	Children entering kindergarten, age ~5 years, 7 <sup>th</sup> grade	Measure						State	☑	Trend data available for children entering kindergarten only
Youth Risk Behavior Surveillance System (YRBS)	Adolescents, grades 9–12	Self-report	☑	☑	☑			State	☑ Middle school piloting underway	Self-report only; limited scope of nutrition, physical activity and screen time questions
School Accountability for Learning and Teaching (SALT)	Elementary, middle and high school students	Self-report	☑	☑	☑			City/Town		Self-report only; limited scope of nutrition, physical activity and screen time questions
National Survey of Children's Health (NSCH)	Children, ages 17 years or younger	Self-report	☑	☑	☑	☑		National and State		No city/town data; Self-report only; limited scope of nutrition, physical activity & screen time

										questions
National Health and Nutrition Examination Survey (NHANES)	Adults and children	Measure	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	National		No state or local data
RI Health Interview Survey (HIS)	All members of households, including children	Self-report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	State, Region, large City/Town		Self-report only; limited questions on nutrition and physical activity
RI Behavioral Risk Factor Surveillance System (BRFSS)	Adults	Self-report	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	State, Region, large City/Town		Self-report only; limited questions on nutrition and physical activity
RI Hospital Discharge Data	Adults and children, all ages						<input checked="" type="checkbox"/>	City/Town		
Death Records (from RI Vital Statistics)	Deaths and causes among adults and children						<input checked="" type="checkbox"/>	City/Town		

\*Nutrition, physical activity, screen time, breastfeeding, and obesity-related chronic disease questions are noted if any questions exist on these topics. The quality and scope of these questions is not characterized.

## Evaluation of the Plan

Evaluation is an integral component of all implementation activities. The goals of the evaluation are to:

- Ensure that objectives and strategies described in the Plan are implemented as planned, specifically targeting priority populations.
- Ensure that outcome objectives associated with the prevalence of obesity, overweight, key behavioral risk factors, and mediating activities are measured.

To accomplish these goals, the following evaluation strategies will be used:

- **Formative evaluation**, including needs assessment surveys, focus groups and individual interviews, will determine what is available and what is needed in the community, and will be used to assess intervention strategies and plans for implementation.
- **Process evaluation** will assess how strategies are being implemented and received among communities, and suggest adjustments in activities and expected outcomes.
- **Impact evaluation** will assess the anticipated changes in schools, childcare, communities, healthcare, and worksites.
- **Outcome evaluation** will assess if the Plan activities have changed the prevalence of overweight, obesity, and key behavioral risk factors.

Depending on the specific activity, evaluation strategies will be used alone or in combination. For example, an evaluation of school-wide policies for physical activity and healthy eating might include all four evaluation strategies. A needs assessment survey could determine how many schools have specific policies in place to support healthy eating and physical activity and barriers to implementing such policies. Process evaluation could assess the number of meetings of the District Wellness Subcommittees, the number of attendees, and the actions of the committees. Impact evaluation could monitor how schools develop and implement policies for nutrition and physical activity. Impact evaluation could also measure changes in the percentage of students who choose healthy food options at school meals or the percentage of students who participate in after-school physical activity programs before and after a school-wide policy for healthy eating or physical activity is implemented. Outcome evaluation could assess the prevalence of overweight and obesity among students, as well as the proportion of students who eat nutritious foods and who are physically active.

Not all Plan objectives will be evaluated at all levels, given constraints of time, resources, and staffing. Long-term and intermediate objectives will be tracked, and short-term objectives will have, at the least, process evaluations so that activities can be tracked. Efforts will be made to fully evaluate Plan activities whenever feasible. Pilot interventions proposed in the Plan and implemented in the community will have formal evaluation plans, encompassing all levels of evaluation, to prepare for other applications of the interventions and future dissemination of best practices.



## Evaluation Instruments and Techniques

To measure the anticipated broad set of changes that occur with implementation of the Plan, a battery of new instruments and techniques will need to be considered. The following is a list of possible new tools to be used to evaluate activities.

### **School Objectives**

- Email (online survey) or phone facilitated (if not completed) survey of school districts (36 District Wellness Subcommittee members) or school level leaders (District Wellness Subcommittee members or school administration); facilitators would be schools and after-school programs workgroup members and/or nutrition facilitators of District Wellness Subcommittees.

### **Early Childhood Objectives**

- Email (online survey), mail or phone facilitated (if not completed) survey of randomly selected childcare providers in Rhode Island.

### **Community Objectives**

- Facilitated survey of at least two leaders from a geographically based set of communities (2 each of 50 communities). Facilitators would be IHW staff and community workgroup members. A second set of surveys will be conducted sampling only underserved communities (2 each of 20 communities).
- In-person facilitated and observational survey of all large grocery stores and a random sample of small, independently owned grocery stores. This would be completed with assistance from health and/or nutrition students.
- In-person facilitated and observational survey of a random sample of restaurants. This would be completed with assistance from health and/or nutrition students.

### **Healthcare Objectives**

- Email (online survey), mail or phone facilitated (if not completed) survey of randomly selected primary care physicians in Rhode Island.
- Email or phone facilitated survey of three health insurers (Blue Cross Blue Shield of Rhode Island, United Healthcare, Neighborhood Health Plan of Rhode Island). Facilitators would be IHW staff.

### **Worksite Objectives**

- Email (online survey), mail or phone facilitated (if not completed) survey of all worksites participating in the WWCRI. Phone survey of 150 randomly selected businesses that do not participate in the WWCRI stratified by business size.

## Data, Surveillance, and Evaluation Objectives (DSE)

The following objectives were developed by the newly-formed *Rhode Island's Healthy Eating and Active Living Collaborative* Data, Surveillance, and Research Workgroup.

**Goal 1:**                    **The characteristics of the existing and optimal data systems will be determined.**

**Objective DSE1:**      **By 2006, conduct a needs assessment to document the current state of data for Rhode Island. §**

### Strategy

- Combine a set of existing resources in surveillance of healthy weights and key risk factors.

**Objective DSE2:**      **By 2007, determine the optimal data system for Rhode Island. §**

### Strategy

- Examine best practices in surveillance of healthy weights and key risk factors.
- Examine geographic, social, and demographic make up of Rhode Island.

**Goal 2:**                    **A plan will be established for creating the optimal surveillance system for Rhode Island.**

**Objective DSE3:**      **By 2008, develop priorities for an optimal surveillance system for healthy weights and key risk factors for Rhode Island. §**

### Strategy

- Consider existing data sources and needs.

**Objective DSE4:**      **By 2008, develop a plan for implementation of the surveillance system for healthy weights and key risk factors for Rhode Island. §**

### Strategy

- Consider existing data needs based on the described optimal data system.
- Identify specific steps toward achieving that system by first meeting the data needs of other workgroups, and by considering and utilizing existing systems when possible.

**Objective DSE5: By 2009, disseminate and implement the plan for a comprehensive data system for Rhode Island. §**

Strategy

- Consider existing data needs based on the described optimal data system.
- Identify specific steps toward achieving that system by first meeting the data needs of other workgroups, and by considering and utilizing existing systems when possible.

**Objective DSE6: By 2010, implement a comprehensive surveillance system in Rhode Island that will:**

- **Encompass children of all age groups.**
- **Assess weight by measurement (not self-report).**
- **Be reportable for each city and town in Rhode Island.**
- **Be reportable for each major ethnic and racial group and socioeconomic position. §**

§ See *Childhood Obesity Data and Evaluation Action Plan* (**Appendix D5**).

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## Section 9: **Implementing the Plan**

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## Support for Implementation

IHW is staffed by a full time program manager; a nutrition coordinator; a physical activity coordinator; and a communications specialist, in addition to an intervention specialist in partnership with Brown University's Institute for Community Health Promotion. However, in a time filled with budget cuts and limited resources, the state will need leadership, collaboration, and creativity to implement and sustain programs, policies, and environmental changes to prevent and control overweight and obesity in Rhode Island. To support the implementation of the objectives presented in the Plan, IHW needs:

- Support and guidance from national experts and colleagues.
- Leadership from all levels within the state.
- Collaboration across HEALTH programs involved in obesity prevention and control.
- Sustainable infrastructure at both the state and community level.

## National Support and Guidance

IHW is guided by evidence-based findings and recommendations of many national health organizations to include CDC; USDA; the National Heart, Lung, and Blood Institute; the National Institute of Diabetes and Digestive and Kidney Diseases; the American College of Sports Medicine; and the National Association for Sport and Physical Education.

### Centers for Disease Control and Prevention

IHW is funded by CDC's Division of Nutrition and Physical Activity. This division takes a public health approach to address the role of nutrition and physical activity in improving the public's health and preventing and controlling chronic diseases. CDC currently funds 21 states at \$400,000 to \$450,000 for capacity building and seven states are funded at \$750,000 to \$1.3 million for basic implementation, bringing the total number of funded states to 28. A CDC Project Officer and Social Marketing Specialist are assigned to each of the 28 states to provide technical assistance and state program monitoring in the following areas: epidemiological and behavioral research, surveillance, training and education, intervention development, health promotion and leadership, policy and environmental change, communication and social marketing, and partnership development. IHW is funded at the capacity building level and is preparing to apply for basic implementation funding in the next 5-year CDC grant cycle to begin in fiscal year 2008. Basic implementation funding will be used to implement workplans developed from the priority objectives identified in the Plan.

### Other State-Based Programs

IHW collaborates with other state-based obesity prevention and control programs on an ongoing basis via a variety of forums (state program meetings, monthly conference calls, web board and listserv, etc.) to share best and promising practices, research, resources, and lessons learned throughout the capacity building and basic implementation stages. IHW also collaborates with state-based obesity programs at the regional level as a member of NECON, a non-partisan organization that serves as a vehicle for the development and enhancement of disease prevention and health promotion public policies in New England. IHW participated in the development of the NECON/Harvard School of Public Health Strategic Plan for the Prevention and Control of Overweight and Obesity in New England. The Plan was chosen as a model for the nation at the National Obesity Action Forum in June 2006. IHW continues its work with other state-funded obesity programs in New England with the development of regional surveillance indicators for obesity prevention and control.

## State Leadership

Strong, supportive leadership is critical to the success of any public health program. IHW is broadly integrated throughout and supported by Governor Carcieri's Wellness Initiative, HEALTH, and other state departments.

### Governor Donald L. Carcieri's Healthcare Agenda

Governor Carcieri's Wellness Initiative, a public-private partnership to promote healthy lifestyles for all Rhode Islanders, has two goals that guide the work of IHW:

1. Achieve the first "Well State" designation in the United States.
2. Cut in half the number of Rhode Islanders with unhealthy and unsafe habits.

Through its focus on worksites, IHW will help achieve the Governor's goal of having Rhode Island designated the first "Well State" in the country. Achieving this status requires that 20% of all employees work for companies that have been certified and designated as "well workplaces" by the Worksite Wellness Councils of America.

IHW is one of the main channels for achieving the Governor's second goal to improve the health and safety of Rhode Islanders. IHW updates the Governor weekly on significant achievements or events related to achieving this goal. In addition, IHW also reports to the Directors' Healthcare Group, via the Director of Health.

### HEALTH Director's Priorities

IHW has the full support of HEALTH. After assuming his position, Health Director David R. Gifford, MD, MPH, immediately identified childhood obesity as one of his top health priorities. The Director's Childhood Obesity Initiative is an integral component of IHW's efforts to prevent and control overweight and obesity across the lifespan. IHW updates the Director monthly on activities and progress related to childhood obesity.

### State Department Collaboration

IHW will continue to work closely with other State Departments whose collaboration is critical to implementation of many obesity prevention interventions. These Departments include:

- RIDE's Coordinated School Health Program and Child Nutrition Programs.
- The RI Department of Environmental Management's Division of Agriculture, which runs the Farmers' Market and Senior Citizen's Farmers' Market Program.
- The RI Department of Transportation, which runs the Safe routes to school Program (in collaboration with the RI Statewide Planning Program), the Bicycle and Pedestrian Program, and the Transportation Enhancement Program.
- The RI Statewide Planning Program, whose support is critical for all built environment initiatives.
- The RI Public Transportation Authority, whose collaboration is needed to support and promote alternate forms of transportation and transportation initiatives for underserved populations.
- The URI Food Stamp Nutrition Education Program; the Food, Hunger & Nutrition Partnership; and the Cooperative Extension Program.
- Rhode Island's network of higher education programs related to health, nutrition, physical activity, and breastfeeding.

## Department-Wide Support

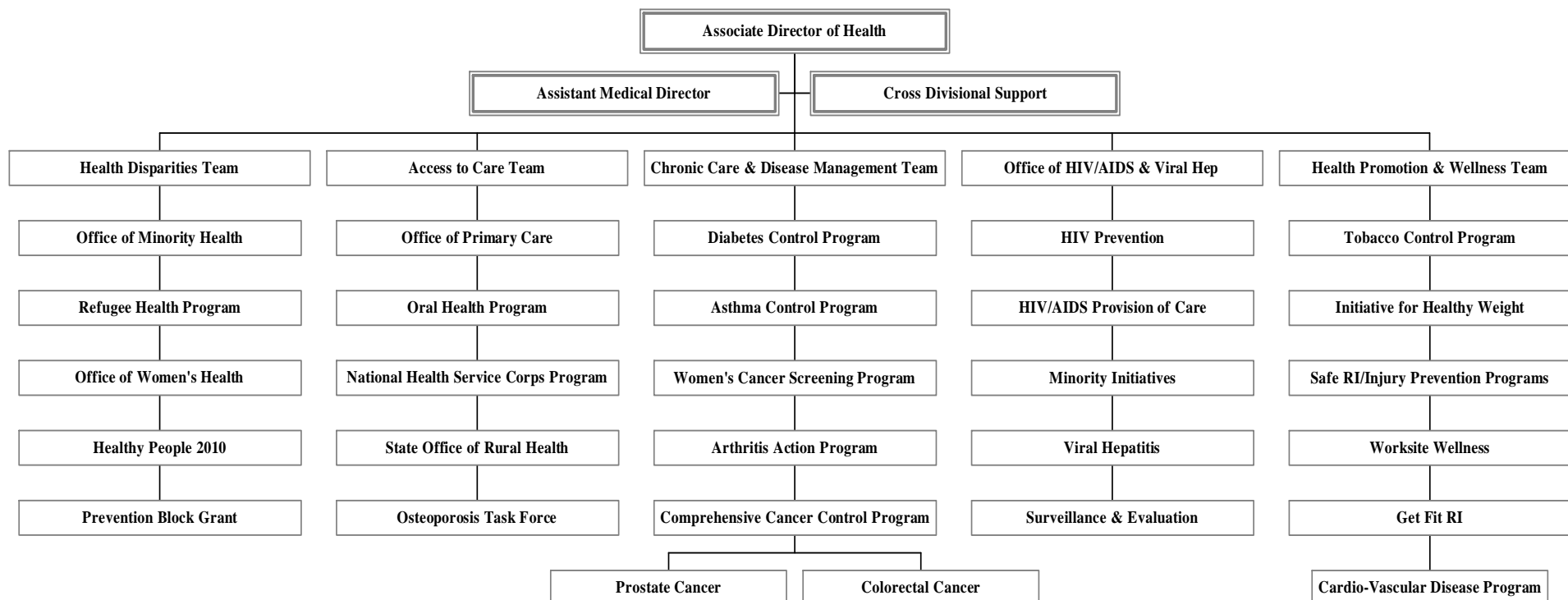
Obesity prevention and control is a top priority in HEALTH and, as a result, many different programs are incorporating obesity prevention strategies into their work. HEALTH is organized by both Divisions, which house programs, and by Centers, which provide cross-cutting support to Divisions. IHW works closely with other programs within its own division, as well as several of other divisions and centers, to ensure coordination of all obesity prevention efforts within the department, to leverage existing resources, and to maximize productivity.

### HEALTH's Division of Community Health and Equity

IHW is situated in the Division of Community Health and Equity and works closely with all of the programs within the Division (**Figure 17**). The placement of IHW ensures regular collaboration and coordination of wellness activities across programs. IHW also draws upon the Division's expertise to eliminate health disparities in overweight, obesity, physical activity, nutrition, breastfeeding, and screen time.



**Figure 17: Organization Chart of HEALTH's Division of Community Health and Equity, July 2006**



The Division of Community Health and Equity is organized around the following four teams:

## **1. Health Promotion and Wellness Team**

In addition to IHW, the team includes the following programs:

### Governor's Get Fit, Rhode Island!

In June 2005, Governor Donald L. Carcieri launched the Get Fit, Rhode Island! State Employee Wellness Initiative. This initiative makes a wide variety of wellness programs accessible to state employees at their worksites, reducing the barriers that workers face in leading active and healthy lifestyles. IHW works directly with the State Wellness Director to assist in the identification, implementation, and evaluation of evidence-based worksite interventions for state employees. In 2006, IHW and Safe Rhode Island were awarded a Transportation Enhancement grant to develop and implement an active commuting project with Get Fit, Rhode Island!

### Safe Rhode Island Program

In collaboration with the RI Department of Transportation and the RI Statewide Planning Program, IHW and the Safe Rhode Island Program have assisted in the development of the Safe routes to school Program. Through the Childhood Obesity Communities Action Team, these partners, along with others, developed an action plan to raise awareness about the program, identify additional funding, and provide technical assistance to schools and communities interested in improving walkability and accessibility.

The Bicycle and Pedestrian Safety Collaborative, funded by the RI Department of Transportation, is staffed by the Safe Rhode Island Program and IHW. This collaborative works with community partners throughout the state to promote safe walking and biking among children and adults and assists. It also works closely with the Safe Routes to School program to help raise awareness of safe walking and biking by holding a Statewide Walk and Bike to School Day each October.

### Tobacco Control Program

IHW works closely with the Tobacco Control Program to learn from its successful policy and environmental initiatives. The Tobacco Control Program serves as a model program for media advocacy and media literacy training. In addition to obesity reduction, smoking reduction is one of the key focus areas of the Governor's Wellness Initiative.

### Worksite Wellness

Worksites wellness is the focus of one of the nine workgroups of the Collaborative. This workgroup is focusing on developing and implementing obesity prevention interventions in worksite settings. HEALTH's Worksite Wellness Program, a Silver Well Workplace designated by the Board of Directors of the Wellness Councils of America, provides support and technical assistance to IHW via the Collaborative, and serves as a state model for other worksite wellness initiatives.

## **2. Health Disparities Team**

### Office of Minority Health

In response to the pervasiveness and severity of health problems experienced by racial and ethnic minority populations in Rhode Island, the Minority Health Promotion Act of 1992 called for the creation of a minority health promotion program to provide health information, education, and risk reduction activities to reduce the risk of premature death from preventable diseases in minority populations. The program funds non-profit community-based organizations to develop and implement comprehensive minority health promotion plans with a focus on obesity prevention, nutrition, and physical activity. IHW is working with the minority health promotion program in the identification, development/tailoring, implementation and evaluation of culturally and linguistically appropriate, evidence-based physical activity, nutrition, and breastfeeding interventions. These initiatives build on both the Department's as well as State's infrastructure to reduce overweight and obesity in racial and ethnic minority populations.

The Office of Minority Health and IHW are jointly developing an ongoing, bimonthly, "train the trainer" certification program in healthy eating and active living and community coalition activities for community grantees and state and community partners with the following modules:

1. Community coalition development and maintenance
2. Community needs assessment
3. Intervention plan development
4. Evaluation of coalitions, workgroups, and interventions
5. Four target behaviors (nutrition, breastfeeding, physical activity, and screen time)
6. Grant writing and resource development

### Refugee Health Program

IHW also works closely with the Refugee Health Program, established in November 2003. The goal of the program is to ensure that refugees and asylees enter into a comprehensive system of care that adequately responds to their unique healthcare needs. The three main components of the Refugee Health Program (coordination of care, education and training, and surveillance and epidemiology) dovetail with the goals of both IHW and the Office of Minority Health. IHW and Office of Minority Health will integrate the resources of the Food and Nutrition Outreach Program of the US Committee for Refugees and Immigrants in their joint, bimonthly, "train the trainer" certification program to communicate culturally relevant nutrition information to refugee communities, empowering refugees to establish positive nutrition habits and prevent disease.

### Office of Women's Health

Women's health needs are addressed in Plan strategies and IHW's community-based interventions. IHW interventions are tailored to the needs of target populations, including women, by discussion groups, key informant interviews, and focus groups with professionals, opinion leaders, and specific target populations. IHW staff serve on the conference planning committee for the Office of Women's Health annual conference.

### Healthy Rhode Island 2010

Plan objectives are in direct alignment those of Healthy People 2010 (**Appendix B**) and Healthy Rhode Island 2010 (**Appendix C**). In addition, two of the ten Leading Health Indicators of Healthy Rhode Island 2010, physical activity and overweight and obesity, help shape IHW interventions to improve the quality and years of life and to eliminate disparities among Rhode Islanders. The Healthy Rhode Island 2010 Program at HEALTH also facilitates collaboration across all programs that address the Leading Health Indicators.

### 3. Chronic Care and Disease Management Team

IHW is consulting with the Chronic Care and Disease Management programs on the development of an obesity prevention curriculum. This curriculum would include modules on nutrition, physical activity, communications, and community-based program development, implementation and evaluation. In addition, the initiatives of *Rhode Island's Healthy Eating and Active Living Collaborative* are coordinated with those of the RI Chronic Care Collaborative.

#### Diabetes Prevention and Control Program

IHW collaborates with and draws on the expertise of the 25-year old Diabetes Prevention and Control Program's Comprehensive Healthcare Improvement Project, the Diabetes Multicultural Coalition, the statewide Certified Diabetes Outpatient Educator Network, the Diabetes Information and Referral Specialist Project, and the Diabetes and Children Committee, and TEAMWorks, a half-day diabetes education program, modeled after Kaiser Permanente's successful Diabetes Morning.

#### Arthritis Action Program

The primary public communication message of the Arthritis Action Program is "Physical Activity, the Arthritis Pain Reliever". The IHW Physical Activity Specialist collaborates with this program by providing training and technical assistance.

#### Asthma Control Program

There is a growing body of evidence that supports the connection between asthma and obesity. IHW supports the Asthma Control Program with resources and technical assistance relating to healthy eating, physical activity, and weight reduction to improve asthma rates in Rhode Island.

#### Osteoporosis Program

Consumption of foods with adequate calcium (e.g., dairy products, dark green leafy vegetables) in addition to weight bearing physical activity (e.g., walking, dancing) may reduce the risk of osteoporosis. IHW, the Osteoporosis Program, and all of the chronic disease prevention programs in the Division, strive to deliver comprehensive, clear, and consistent public health messages related to the many benefits of healthy eating and active living.

#### Comprehensive Cancer Control Program and Women's Cancer Screening Program

Twenty-five to 30% of several major cancers, including colon, breast (postmenopausal), endometrial, kidney, and cancer of the esophagus, may be accounted for by obesity and physical inactivity.<sup>272</sup> IHW and the Comprehensive Cancer Control (CCC) Program, including the Women's Cancer Screening Program, are cross-represented on *Rhode Island's Healthy Eating and Active Living Collaborative* and the Program's Partnership to Reduce Cancer in Rhode Island. IHW actively participates on the Prevention Workgroup (i.e., 5 A Day and physical activity promotion) of the Partnership, and provides ongoing technical assistance and support related to nutrition and physical activity to both the Program and the Partnership. The IHW Program Manager, formerly the CCC Program Manager, also provides technical assistance and support to statewide initiatives related to nutrition and physical activity for improved outcomes of cancer survivors.

### The Office of HIV/AIDS and Viral Hepatitis

IHW provides resources and technical assistance on healthy eating and physical activity to the Office of HIV/AIDS and Viral Hepatitis as requested by state and community partners.

#### **4. Access to Care Team**

##### Office of Primary Care

The Office of Primary Care maintains a broad complement of community and governmental partners with whom IHW works to prevent and control overweight and obesity in Rhode Island. The Office of Primary Care provides support to the state's Primary Care Physician Advisory Committee, the RI Health Center Association, the RI Area Health Education Center and Brown Medical School among others, and will serve as the main channel IHW will utilize in advocating for and implementing obesity prevention and treatment initiatives in healthcare settings.

##### Oral Health Program

As breastfeeding is one of the key behavioral risk factors for obesity, IHW and the Oral Health programs are represented on the Healthy Mothers Healthy Babies Coalition, a partnership of individuals, and professional, voluntary, and government organizations devoted to improving the well-being of mothers and babies through education and advocacy. In collaboration with the Oral Health Program, IHW is currently exploring the possibility of conducting a BMI assessment in conjunction with oral health screenings of third graders in Rhode Island.

##### The National Health Service Corps' SEARCH Program

The SEARCH Program in Rhode Island is supported by the National Health Service Corps in cooperation with HEALTH's Office of Primary Care and Brown University's Department of Family Medicine. SEARCH is an eight-week clinical/community health rotation that provides health professions students with community-oriented primary care training experience in underserved areas of Rhode Island. IHW is working to incorporate obesity education (i.e., nutrition and physical activity) into the didactic curriculum to build a state healthcare workforce that is savvy in obesity prevention and treatment.

##### Professional Loan Repayment Program

IHW advocates for the Professional Loan Repayment Program to help develop and retain the state's healthcare workforce specific to obesity prevention and treatment.

##### State Office of Rural Health

The mission of the Rural Health Program is to promote continued improvement in the health status of residents in rural Rhode Island, and shares HEALTH's vision that all Rhode Islanders will have the opportunity to live safe and healthy lives in safe and healthy communities. Via mini grant funding from CDC, IHW is currently partnering with the URI Food, Hunger & Nutrition Partnership to develop a community-based coalition to promote healthy eating and active living, and to complete a needs assessment related to food insecurity, malnutrition and hunger in the rural towns of southern Rhode Island. In addition to IHW, the Rural Health Program will provide training and technical assistance to support this initiative.

## HEALTH's Other Divisions and Centers

IHW works with the following Divisions and Centers:

### **Division of Family Health**

IHW is working closely with the Division of Family Health to address childhood obesity through family-focused initiatives, school initiatives, and early childhood interventions. IHW will continue to collaborate with the WIC Program, the Family Planning Program, the Coordinated School Health Program, School-Based Health Centers, Early Childhood Development, Community Partnerships, and the Disability and Health Program.

### **Center for Public Health Communication**

The IHW Communications Specialist acts as a liaison to the Center for Public Health Communication. The communications objectives in the Plan will be achieved in a collaborative fashion drawing upon the skills and expertise of the entire Center. The Center will assist in media advocacy, public relations, and campaign coordination.

### **Center for Health Data and Analysis**

The Data, Surveillance, and Research Workgroup will work closely with the Center for Health Data and Analysis in the development and implementation of a statewide surveillance system, in the expansion of existing data sets to include obesity-related data, and in the evaluation of Plan objectives.



## Statewide Partnership Infrastructure

To implement the Plan, IHW has partnered with experts in nutrition, breastfeeding, physical activity, screen time, communications, data and surveillance, as well as active individuals in childcare settings, schools, communities, worksites, and healthcare settings. These partners are all part of *Rhode Island's Healthy Eating and Active Living Collaborative*. With over 200 members, including OPC members, COAT members, January 2006 Leadership Summit participants, and new partners, the Collaborative will serve as the vehicle for:

1. Coordinating statewide obesity prevention efforts.
2. Networking, sharing information and emerging best practices, and providing technical assistance to community partners.
3. Solidifying state and community infrastructure for implementing and evaluating the Plan.
4. Leveraging funding.
5. Ensuring sustainable programs, policies, and environmental supports to prevent and control overweight and obesity among all Rhode Islanders.

To tackle the tremendous amount of work around obesity prevention and control in Rhode Island, smaller workgroups are being established based on the breakout sessions from the Collaborative's first summit meeting in June 2006. These workgroups are:

- Early Childhood Settings
- Schools and After-School Programs
- Healthcare and Health Plans
- Worksites
- Community Access to Physical Activity (Built Environment)
- Community Access to Healthy Foods (Built Environment)
- Community-Based Programs and Resources
- Data, Surveillance, and Research
- Communications and Media

The basis for most of these workgroups will be the COATs, established through the Childhood Obesity Initiative. The COATs will be expanded to address obesity prevention and control across the lifespan. The Healthcare and Health Plans Workgroup and the Worksites Workgroup are the most recently formed. The Collaborative will work closely with the RI Breastfeeding Coalition in lieu of forming an additional breastfeeding workgroup. As new priorities are identified, additional workgroups may be formed.

Each workgroup will take ownership of the corresponding short-term objectives in the Plan and will develop detailed workplans for implementation of strategies to achieve these objectives. Each workgroup will identify the resources needed to achieve their objectives. Workgroups will leverage existing resources and apply for additional federal, state, and foundation funding.

The Collaborative's workgroups will meet individually on a monthly basis, and then come together at quarterly meetings of the Collaborative. These quarterly meetings will provide an opportunity for workgroups to share their work and collaborate on joint projects. In addition, the Collaborative will hold an annual Rhode Island Healthy Eating and Active Living summit to engage high-level leadership (i.e., the Governor's Office, legislators, business executives), involve external partners (i.e., those who may not have the time or resources to be involved in workgroups or quarterly meetings), report on the progress in meeting objectives, and strategize about future priorities and directions.

To support the Collaborative and its workgroups, IHW will:

- Apply for Basic Implementation funding from CDC.
- Provide ongoing technical assistance in identifying additional sources of funding, with a focus on leveraging resources from various sources, including federal (e.g., CDC, NIH), state and foundation grants, tax on junk food and sugar-sweetened beverages, etc.
- Provide ongoing training on best practices related to healthy eating and active living.
- Support communication and collaboration between partners.
- Assist with community-based needs assessments.
- Assist with the development of intervention and evaluation plans.
- Develop a monthly partner newsletter to ensure that communication and collaboration between partners is sustained.
- Explore nonprofit, 501c3 tax-exempt status for the Collaborative.
- Assist in the formalization of the Collaborative via the development of vision, mission and goal statements, the development of a logo, and the identification of community-based workgroup chairs.
- Staff the Collaborative until it becomes its own non-profit organization (501c3 status). At that point, the Collaborative will be staffed by a Coalition Manager, with the continued staffing support of IHW.
- Assume fiscal responsibility for implementation of the Plan until non-profit status is achieved. At that point, the Collaborative will serve as the main vehicle for leveraging existing funding sources and applying for additional funds for implementation of the Plan, with the continued support of IHW.

## Community Infrastructure

In addition to the Collaborative, community coalitions will provide a local infrastructure for implementing the Plan. IHW and HEALTH's Division of Family Health provided initial start-up funds through a competitive Request for Proposals process for six communities (**Appendix G**) to form coalitions, conduct obesity-related needs assessments, and develop community-specific obesity prevention action plans. Through these coalitions, local governments, public health agencies, business partners, and community-based organizations can work together to increase access to healthy foods and opportunities for physical activity, and to develop and promote programs that encourage healthy eating and physical activity.

IHW and the Collaborative will provide ongoing technical assistance, training, and resources to current grantees to assist with:

- Developing and/or expanding coalitions
- Developing and conducting community needs assessments
- Developing action plans
- Identifying resources and funding
- Identifying model programs and policies
- Intervention planning, implementation, and evaluation

In addition, if basic implementation funding from CDC is secured, IHW will make additional funding resources available to community-based partners via a competitive Request For Proposal process.

## Take Action with Us!

Developing a plan for preventing and controlling overweight and obesity is only the first step in addressing this public health problem. The most important step is the next one: Translating the Plan into ACTION—action in schools, action in childcare, action in communities, action in healthcare, and action in worksites. Action is needed to change policies, environments, social norms, knowledge, and, ultimately, behavior.

Take action in your school, childcare facility, community, healthcare setting, or worksite!

- Identify areas in your organization where you can improve programs, policies, or environments to support healthy eating and active living.
- Review the objectives and strategies in the Plan and identify which ones best fit the needs of your organization.
- Become a member of *Rhode Island's Healthy Eating and Active Living Collaborative* by completing and submitting the form in **Appendix H**.

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## APPENDICES

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## Appendix A. State Planning Participants

Below is a complete list of people who participated in the OPC, the COATs, the January 2006 Leadership Summit, and/or the June 2006 Summit of the Collaborative. If any of this information is incorrect, please contact IHW and we will correct the information in our contact database, as well as in the next update of the Plan.

Cheryl Albright  
American Cancer Society

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Centers for Disease Control & Prevention

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RI Department of Education

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Progreso Latino, Inc.

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Andrea Bagnall-Degos  
RI Department of Health

Yeimy Bakemon-Morel  
CHILDSPAN

Anne Barlow  
Joseph Jenks Jr. High

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Cheryl Bayuk  
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Tourtellot Produce & Co., Inc.

Dan Beardsly  
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Diana Beaton  
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Tanya Becker  
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Loretta Becker  
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Jill Beckwith  
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Kids First, Inc.

Marti Breau  
Kids First, Inc.

Heather Brennan  
Family Service

Liz Browning  
Southside Community Land Trust

Cynthia Buckley  
Thundermist Health Center

Elizabeth Bugden  
Kids First

Daren Bulley  
Kids First

Sarah Cahill  
RI After School Alliance Plus

Janice Caianiello  
RI State Nurses Association

Donna Callahan  
North Kingstown School District

Kristine Campagna  
VNA-Care New England

Melissa Campbell  
American Cancer Society

Suzanne Carcieri  
First Lady of the State of Rhode Island

Janice Cardarelli  
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Colleen Caron  
RI Department of Health

Kara Caron  
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Sharon Carter  
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Paula Cartwright  
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Maria Chalmers  
Blue Cross Blue Shield of Rhode Island

Pich Chhoeun  
American Cancer Society

Steven Church  
RI Department of Transportation

Steven Cohen  
RI Assoc. for Hlth, PE, Recreation & Dance

Jennifer Conley  
Project Outreach Washington Park UMC

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University of Rhode Island

Mary Connor  
COX Communications

Melanie Coon  
Clarendon Group

Susan Cooper  
City of Newport

Arianne Corrente  
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Burrillville School Department

Kathleen Cullinen  
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Teresa Curtin  
Connecting for Children and Families

Gail Davis  
Electronic Data Systems

Melissa Deitrick  
RI Department of Health

Sandi Delack  
SD Barnes Elementary School

Mary-Elena DeLuca  
Kids First

Barbara DeMasco  
Burrillville High School

Elaine DeSisto  
Tritown WIC

Alexis Devine  
Lifespan Community Health Services

Ligia Diaz  
CHILDSPAN

Bonnie Dixon  
Kids First, Inc.

Glenn Dooley  
Sanofi-Aventis

Marianela Dougal  
Progreso Latino, Inc.

Helen Drew  
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Beth Driscoll  
United Healthcare

Diane Dufresne  
Pawtucket Substance Abuse Task Force

Erin Dugan  
RI Department of Health

Jocelyn Dutil  
Newman YMCA

Robin Etchingham  
RI Department of Human Services

Steve Falkenberg  
RI ACOG

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Wood River Health Services

Susan Farrell  
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Rilwan Feyisitan  
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Leanne Fournier  
Brown University

Lenore Fournier

Gregory Fox  
RI Hospital

Lisa Franchetti  
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Molly Frederickson  
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Sharon Friedman  
Heritage Park YMCA

Rebecca Frost

James Frost  
Lincoln High School

Noah Fulmer  
Farm Fresh Rhode Island

John Fulton  
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Sandra Gabriel  
Newport Hospital

Angelo Garcia  
CHisPA

Angelo Garcia Director  
Channel One

Jorge Garcia  
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Blue Cross Blue Shield of Rhode Island

David Gifford  
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Care New England

Shana Klinger  
Clarendon Group

William Koconis  
American Heart Association

Edna Kurtzman  
Bayside Family YMCA

Victoria Lombardi  
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Lodie Lambright  
RI Department of Health

Margaret Lander  
RI Department of Health

Dennis Langley  
Urban League of Rhode Island

Thomas Lasater  
Brown University

Eliza Lawson  
Brown University

Ronald Lebel  
RI Department of Human Services

Kathleen Leclerc  
North Smithfield Junior-Senior High School

Brenda-Lee Leone  
CCAP Cranston Child Development

Karen Leslie  
YMCA of Greater Providence

Nancy Libby-Fisher  
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Cherylynn Lillvik  
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Ana Lindsay  
Harvard School of Public Health

Jaime Longval  
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Lynette Lopes  
Blue Cross Blue Shield of Rhode Island

Susan Loughlin  
East Bay Head Start

Maureen Lund  
Blue Cross Blue Shield of Rhode Island

Michelle Lupoli  
Neighborhood Health Plan of Rhode Island

Mary Ellen Mahaoney  
YMCA Newman

Debbie Maier  
Brown Medical School & Miriam Hospital

Sharon Marable  
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Stephanie Marchand  
University of Rhode Island

David Marquis  
Lifespan Community Health Services

Robert Marshall  
RI Department of Health

Patricia Martinez  
RI Dept. of Children, Youth and Families

Rebecca Martinique  
Arthritis Foundation

Fatima Martins  
Children's Friend and Service

Kathi Masi  
South Kingstown High School

Gina Mastromatteo-Dion  
Woonsocket Head Start

Cindy McDermott  
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Robin MacDonald  
YMCA of the USA

Rosemary McGwin  
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Jennifer McKinnon  
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Linda McMullon  
RI Department of Health

Linda Mendonca  
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Jan Mermin  
RI Department of Education

Steve Miller  
NECON

Kathy Moren  
Healthy Babies, Happy Moms, Inc.

Solange Morrisette  
Sodexo School Services

Katie Mulligan  
Children's Friend and Service

Katie Murray  
Ready to Learn Providence

Melissa Napolitano  
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Lisa Nault  
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## Appendix B. Healthy People 2010 Objectives for Obesity Prevention and Control

In 2000, the USDHHS launched the third generation of national health objectives with the adoption of Healthy People 2010. Developed by leading federal agencies with the most relevant scientific expertise, Healthy People 2010 serves as the nation's health promotion and disease prevention agenda for the first decade of the 21st century. Building on similar initiatives from the last two decades, Healthy People 2010 outlines goals and objectives in 28 areas to guide public health programs and initiatives and improve the public's health in communities across the nation. Nutrition and physical activity are two of these areas identified for 2010. Increasing breastfeeding rates and duration is one of the main population-based, behavior change strategies for the prevention of childhood overweight and obesity.

In addition, Healthy People 2010 selects ten Leading Health Indicators that reflect priority public health concerns in the United States. These indicators are chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues. "Physical Activity" and "Overweight and Obesity" are two of the ten Leading Health Indicators. Of the objectives shown below, the ones selected as Leading Health Indicator objectives are shown in **bold**.

### Physical Activity

<b>Goal:</b>	<b>Improve health, fitness, and quality of life through daily physical activity.</b>
22-1	Reduce the proportion of adults who engage in no leisure time physical activity.
<b>22-2</b>	<b>Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.</b>
22-3	Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness three or more days per week for 20 or more minutes per occasion.
22-4	Increase the proportion of adults who perform physical activities that enhance and maintain muscular strength and endurance.
22-5	Increase the proportion of adults who perform physical activities that enhance and maintain flexibility.
22-6	Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days.
<b>22-7</b>	<b>Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days per week for 20 or more minutes per occasion.</b>

- 22-8 Increase the proportion of the Nation's public and private schools that require daily physical education for all students.
- 22-9 Increase the proportion of adolescents who participate in daily school physical education.
- 22-10 Increase the proportion of adolescents who spend at least 50 percent of school physical education class time being physically active.
- 22-11 Increase the proportion of adolescents who view television two or fewer hours on a school day.
- 22-12 Increase the proportion of the Nation's public and private schools that provide access to their physical activity spaces and facilities for all persons outside of normal school hours.
- 22-13 Increase the proportion of worksites offering employer-sponsored physical activity and fitness programs.
- 22-14 Increase the number of trips made by walking.
- 22-15 Increase the number of trips made by bicycling.

## Nutrition and Obesity

**Goal:** **Promote health and reduce chronic disease associated with diet and weight.**

- 19-1 Increase the proportion of adults who are at a healthy weight.
- 19-2 Reduce the proportion of adults who are obese.**
- 19-3 Reduce the proportion of children and adolescents who are overweight or obese.**
- 19-4 Reduce growth retardation among low-income children under age five years.
- 19-5 Increase the proportion of persons aged two years and older who consume at least two daily servings of fruit.
- 19-6 Increase the proportion of persons aged two years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or orange vegetables.

- 19-7                    Increase the proportion of persons aged two years and older who consume at least six daily servings of grain products, with at least three being whole grains.
  
- 19-8                    Increase the proportion of persons aged two years and older who consume less than 10 percent of calories from saturated fat.
  
- 19-9                    Increase the proportion of persons aged two years and older who consume no more than 30 percent of calories from total fat.
  
- 19-10                   Increase the proportion of persons aged two years and older who consume 2,400 mg or less of sodium daily.
  
- 19-11                   Increase the proportion of persons aged two years and older who meet dietary recommendations for calcium.
  
- 19-12                   Reduce iron deficiency among young children and females of childbearing age.
  
- 19-13                   Reduce anemia among low-income pregnant females in their third trimester.
  
- 19-14                   Reduce iron deficiency among pregnant females.
  
- 19-15                   Increase the proportion of children and adolescents aged six to 19 years whose intake of meals and snacks at school contributes to good overall dietary quality.
  
- 19-16                   Increase the proportion of worksites that offer nutrition or weight management classes or counseling.
  
- 19-17                   Increase the proportion of physician office visits made by patients with a diagnosis of cardiovascular disease, diabetes, or hyperlipidemia that include counseling or education related to diet and nutrition.
  
- 19-18                   Increase food security among U.S. households and in so doing reduce hunger.

## Breastfeeding

- 16-19                   Increase the proportion of mothers who breastfeed their babies.
  
- 16-19a                   Increase the proportion of mothers who breastfeed their babies in the early postpartum period.



- 16-19b      Increase the proportion of mothers who breastfeed their babies at 6 months.
- 16-19c      Increase the proportion of mothers who breastfeed their babies at 1 year.

## Appendix C. Healthy Rhode Island 2010 Objectives for Obesity Prevention and Control

Healthy Rhode Island 2010 follows the lead of the national Healthy People 2010 initiative by adopting the ten leading health indicators and the corresponding subset of 27 objectives. The Plan is intended for public health practitioners, worksites, schools, healthcare providers, legislators, educators, community groups, researchers, and other individuals and organizations working to improve the health of Rhode Island residents. Reduced prevalence of overweight and obesity, increased prevalence of regular physical activity, and better nutrition are among Rhode Island's top public health priorities.

### Physical Activity

- |     |   |
|-----|---|
| 1-1 | Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes a day.  |
| 1-2 | Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardio respiratory fitness 3 or more days per week for 20 or more minutes per occasion. |

### Overweight and Obesity

- |     |   |
|-----|---|
| 2-1 | Reduce the proportion of adults who are obese.  |
| 2-2 | Reduce the proportion of children and adolescents who are overweight and obese.   |
| 2-3 | Increase the proportion of persons aged 2 years and older who consume at least 5 daily servings of fruits and vegetables. |

## Appendix D Childhood Obesity Action Plans

### Appendix D1. School-Aged Children Action Plan

Developed in coordination with the RI Healthy Schools Coalition Steering Committee

#### **GOAL 1: Improve nutrition and physical activity among youth during the school day, through adoption and implementation of school district wellness policies and plans**

<b>GOAL 1: Objective 1.1</b>  Thirty-six District Wellness Subcommittees will receive information, professional development, and technical assistance to support development of wellness policies and plans.		<b>Measure of Success</b>  All 36 District Wellness Subcommittees will have ongoing contact with at least one member of the RIHSC.  All 36 districts submit Wellness Strategic Plans in May 2006 and Wellness Policies before September 2006.  All 54 Independent Schools (ISs) and Residential Child Care Centers (RCCIs) will have Wellness Policies in place before September 2006.		
<b>Strategy</b>  Develop a support network for and among the District Wellness Subcommittees to provide information, technical assistance, nutrition and wellness education, professional development and share best practices.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/ Milestones</b>	<b>Dependencies/ Resources</b>
Provide all District Wellness Subcommittees with toolkits	Rosemary Reilly-Chammat	Fall 2005 and ongoing	All 36 District Wellness Subcommittees will have at least ten toolkits	Human resources, materials, CDC funding
Meet with leadership teams of each District Wellness Subcommittee to deliver toolkits	Rosemary, Dorothy Brayley & key RIHSC / SAS members	January 2006–April 2006	Documented contact with each of 36 District Wellness Subcommittees	Human resources; USDA funding
Develop and maintain email	Rosemary, Jan	March 2006	Listserv developed	Human resources, technical capability

communications network with 100% of District Wellness Subcommittee leadership (2 per district)	Mermin & Dorothy			
Send regular updates, announcements of programs and resources, additions to kits, sharing of success stories etc.	Rosemary, Jan & Dorothy	January 2006 and ongoing	Listserv developed Communications made	Human resources; USDA funding
Post toolkit components, updates, etc. on websites and inform District Wellness Subcommittees	Jan	June 2006 and ongoing	Materials posted on website	Human resources; CDC funding for website development
Maintain/expand bureau of experts who can provide facilitation and technical assistance to District Wellness Subcommittees for successful wellness policy and strategic plan development	RIHSC/SAS members	February 2006 and ongoing	Increase number of RIHSC members who serve as "facilitators" with local District Wellness Subcommittees; meetings attended and documented	Human resources; in-kind donation of staff time from member organizations
Provide educational workshops/trainings for District Wellness Subcommittees	Kids First	February 2006 and ongoing	Educational workshops and presentations delivered and documented	USDA funding for professionals' stipends and coordinator's time
Advocate student involvement in district wellness planning and policy development initiatives	Subcommittee of RIHSC	January 2006 and ongoing	Each wellness council will have at least one student representative	Human resources; in-kind donation of staff time from member organizations
Educate community partners on existence of District Wellness Subcommittees and help connect them to their district's subcommittee	RIHSC/SAS members	January 2006 and ongoing	Increase number of RI HSC members who are active with local wellness councils; Meetings with partner organizations staff	Human resources; in-kind donation of staff time from member organizations
Provide augmented technical assistance (motivational interviews and self-assessments) to selected District Wellness Subcommittees	Kids First, ICHP	July 2006 and ongoing	Document evidence that local strategies to improve nutrition and physical activity make a difference	RWJF funds for evaluation

Develop system to track progress on development and implementation of district wellness policies and plans	Rosemary, Jan & Dorothy	May 2006 and ongoing	Tracking system in place	Human resources; USDA funding for coordinator's time
Develop and disseminate informational package on wellness policies to Independent Schools and to Residential Child Care Institutions	Jan & Steve Carey	April 2006	Informational package received by all 54 ISs and RCCIs	Human resources
Provide limited technical assistance to Independent Schools and Residential Child Care Institutions on wellness policy development	Jan, Steve Carey; Kids First	April 2006 and ongoing	Technical assistance provided and documented	Human resources; USDA funding for coordinator's time
Develop mechanism to review district strategic plans and wellness policies and provide feedback to districts	Jan & Rosemary	April to August 2006	Feedback provided to all districts on wellness portion of DSP	Human resources
Provide additional guidance and models to District Wellness Subcommittees & superintendents on incorporating wellness into District Strategic Plans (DSPs)	Jan	April 2006	All 36 District Wellness Subcommittees receive information; all 36 DSPs incorporate wellness	Human resources
Finalize and disseminate reports on school nutrition environment study with CDC and ETR Associates	Jan	April to June 2006	All 36 Districts receive reports	Human resources; completion of reports by ETR Associates; CDC approval
Host networking session for District Wellness Subcommittee leaders for sharing and additional training	Rosemary & Dorothy	May 2006	Participation by all 36 District Wellness Subcommittees; positive evaluations	Human resources; CDC funding
Conduct next RIHSC Breakfast for school and district leaders on nutrition & physical activity in schools	Dorothy & Karin Wetherill	September 2006	Participation by over 300 individuals from all 36 District Wellness Subcommittees; positive evaluations	Human resources; funding from RIDE, DOH, and other RIHSC partners; in-kind donation of staff time from member organizations

<b>GOAL 1: Objective 1.2</b>  State level actions will be developed to support and sustain individual district efforts as well as build consistency across districts			<b>Measure of Success</b>  State level endorsed policy language for physical activity and nutrition, nutrition guidelines and approved food product lists are all available to districts and appear in submitted district wellness strategic plans and policies.	
<b>Strategy</b>  Develop a state-endorsed Model Policy for District Nutrition and Physical Activity, including Nutrition Standards for all foods available in schools and corresponding approved foods list.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/ Milestones</b>	<b>Dependencies/ Resources</b>
Advocate for strong leadership in state’s Child Nutrition Program	RIHSC/SAS members	January–February 2006	New RIDE Child Nutrition Director is engaged in this work	Human resources
Revise/update physical education/activity policy language	Steve Cohen, Shawna Southern & Dorothy	January–April 2006	Physical activity policy is updated with full consensus from RIHSC	Human resources; in-kind donation of staff time from partners
Revise/update nutrition policy language, including, nutrition guidelines for all foods available in schools	Jeanette Nessett, Dorothy	January–April 2006	Nutrition policy is updated with full consensus from RIHSC	Human resources; in-kind donation of staff time from member organizations
Advocate for state level “incentive” to school districts for purchasing locally produced fruits and vegetables (and low-fat dairy) from local farmers for school meals programs.	Dorothy; Ken Ayers	February–June 2006	Local Purchasing incentive identified, proposed and passed in 2006 legislative session	Funds for RI Farm-School Coordinator
Advocate w/ General Assembly for strengthened nutrition requirements in schools (e.g. healthier snack and beverage requirements, etc.)	RIHSC/SAS members, where appropriate	February–June 2006	Nutrition guidelines for schools are established/mandated	Human resources

Advocate with General Assembly for strengthened requirements for Physical Education (e.g. PE minutes, update standards, mandate professional development in PE standards, eliminate substitution, improved facilities, etc.)	RIAPERD & RIHSC/SAS members, where appropriate	February–June 2006	Infrastructure for physical education in schools is established/mandated	Human resources
Seek DOH, DEM/Agriculture, and RIDE/Board of Regents endorsement of new model nutrition and physical activity policy language and nutrition guidelines	Jan, Rosemary, Ken, & RIHSC/SAS members, where appropriate	May–June 2006	Model policy language and guidelines are formally endorsed by DOH, DEM/Agriculture, and RIDE/Board of Regents	Human resources
Develop state system to support nutrition guidelines (e.g. maintain approved product list)	Jan, Rosemary, Dorothy & Kathy Cullinen	May 2006 and ongoing	System is in place for supporting	Funding
Explore options for enforcing existing health and physical education mandate	Shawna, Steve Cohen & Jan	June 2006 and ongoing	Options identified and plan developed for moving forward	Human resources
Develop joint annual legislative agenda for physical activity and nutrition with school-age youth	Jan, Rosemary, Kathy & RIHSC/SAS	November 2006–January 2007 and subsequent years	Legislative priorities identified; potential legislation drafted and submitted	Human resources

<b>GOAL 1: Objective 1.3</b>  Thirty-six District Wellness Subcommittees will receive information, professional development, and technical assistance to support implementation of wellness policies and plans.		<b>Measure of Success</b>  All 36 districts submit will be successfully implementing improvements in nutrition and physical activity.		
<b>Strategy</b>  Provide individualized technical assistance along with workshops for all District Wellness Subcommittee chairs. Develop tools to help ensure that districts are able to meet federal and state mandates.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/ Milestones</b>	<b>Dependencies/ Resources</b>
Develop simple self-survey tool for district PE/PA and distribute to all District Wellness Subcommittees	Deb Ranaldi & Dorothy	January–April 2006	Schools have data on their current physical activity practices and can track improvements	Human resources
Cultivate best practices and district innovations in physical activity/education	RIAPERD & RIHSC PE/PA Subcommittee	September 2006 and ongoing	Disseminate through listserv	Human resources
Expand and strengthen school relationships with vendors/distributors of healthier foods and facilitate getting healthier foods available to schools and childcare programs	Dorothy	August 2006 and ongoing	Healthy School Foods Tradeshow, August 2006	Human resources; self-funded through Trade Show Booth fees
Assist with getting more fruits and vegetables available to schools and childcare programs through Farm-to-School Roundtable and ongoing technical assistance	Dorothy, Ken, Farm Fresh Rhode Island, & RICAPE	January 2006 and ongoing	Successful Farm-School Foodservice Roundtable, Feb, 2006	Funds for RI Farm-School Coordinator
Encourage school participation in statewide Worksite Wellness initiatives and to seek WELCOA	Tricia HEALTH Worksite Wellness & RIDE	June 2006 and ongoing	School worksite wellness programs implemented in some schools	Human resources



certification				
Encourage WWCRI to reach out to schools	Tricia, HEALTH Worksite Wellness & RIDE	June 2006 and ongoing	School worksite wellness programs implemented in some schools	Human resources
Develop pilot school worksite wellness program	Tricia, HEALTH Worksite Wellness & RIDE	June 2006 and ongoing	School worksite wellness programs implemented in some schools	Human resources
Support planning and implementation of Safe Routes to School (SR2S) program in 1–10 communities  [See Communities Action Plan Objective 2.1]	DOH & RIDE, in partnership with RIHSC/SAS members	March 2006 and ongoing	Safe Routes to School implemented	Human resources
Update RIHSC/SAS members and other community partners about federal and state legislation, recent research, best practices and new resources through e-mail communications	Melissa Campbell & RIHSC Communications subcommittee	February 2006 and ongoing	RI HSC members receive at least monthly updates of recent and most pertinent information regarding federal and state legislation, recent research, best practices and new resources	Human and technical resources
Pilot after-school programming that focuses on preventing childhood obesity	Sarah Cahill	September 2006 and ongoing	After-school programming piloted	Corporation for National and Community Service or other funding

<b>GOAL 1: Objective 1.4</b>		<b>Measure of Success</b>		
Parent engagement will increase in districts’ efforts to improve nutrition and physical activity.		Parents will be actively involved in all 36 District Wellness Subcommittees.  Parents will compromise at least 50% of the membership of all 36 committees.		
<b>Strategy</b>				
Create a subcommittee of the RIHSC that will develop and implement strategies and action steps focused on informing educating and engaging parents in nutrition and physical activity improvement in their districts				
Action Steps	Assigned to	Time Frame	Deliverable/ Milestones	Dependencies/ Resources
Write and submit “short pieces” to be distributed through RIASP newsletter, including pieces that principals could include in their own newsletters to parents	Joe Pasonelli & RIHSC Steering Committee members	February–May 2006	Pieces in RIASP newsletter	Human resources; communications assistance
Develop parent engagement tool for the toolkit	RIHSC Parent Subcommittee	June–August 2006	Parent engagement piece added to Tool kit	Human resources
Communicate through local papers and media	RIHSC Parent Subcommittee	June 2006 and ongoing	Monthly stories	Human resources; communications assistance
Invite local papers to highlight local physical activity and nutrition related events in schools	RIHSC Parent Subcommittee	June 2006 and ongoing	Monthly stories	Human resources; communications assistance
Work with RIPIN to coordinate parent engagement strategies around physical activity & nutrition	RIHSC Parent Subcommittee	June 2006 and ongoing	Joint strategies identified	Human resources
Share strategies and recommendations and coordinate efforts with RIDE Progressive Support & Intervention Family Engagement and Safe & Supportive School Action Teams	Jan & RIHSC Parent Subcommittee	June 2006 and ongoing	Strategies and recommendations shared	Human resources

<b>GOAL 1: Objective 1.5</b>		<b>Measure of Success</b>		
Nutrition and physical activity best practices and standards will be adopted in all RI before- and after-school programs, as extensions of the school day.		Every before- and after-school program in Rhode Island will serve foods that meet state nutrition guidelines.  Every before- and after-school program in Rhode Island will provide regular opportunities for children to engage in physical activity.		
<b>Strategy</b>				
Recruit after-school program leaders to the RIHSC and CO Subgroup and recruit their participation in District Wellness Subcommittees. Incorporate active participation of youth in after-schoolwork.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/ Milestones</b>	<b>Dependencies/ Resources</b>
Recruit after-school programs and related organizations to RIHSC	Sarah & RIHSC Steering Committee	April 2006 and ongoing	RIHSC membership includes more before- and after-school program providers	Human resources
Engage after-school program providers in local District Wellness Subcommittees	Sarah & RIHSC Steering Committee	April 2006 and ongoing	District Wellness Subcommittees membership includes before- and after-school program providers	Human resources
Provide info to schools on how before- & after-school initiatives can provide opportunities for nutrition & physical activity (e.g. YMCAs, NFL ReCharge, etc.)	Rosemary, Jan, Dorothy & Jeanette	February 2006 and ongoing	All District Wellness Subcommittees receive information	Human resources
Disseminate info to after-school programs about best practices in nutrition & physical activity	Sarah	September 2006 and ongoing	All programs in RI; After School Plus Alliance receive information	Human resources
Provide training to after-school programs on best practices in nutrition and physical activity	Sarah	September 2006 and ongoing	At least 1/3 of all programs in RI After School Plus Alliance receive training	Funding and human resources

**GOAL 2: Students will receive high quality health and physical education instruction, which promotes lifelong healthy eating and active living.**

<b>GOAL 2: Objective 2.1</b>  School staff in all 36 districts will receive professional development related to nutrition and physical activity.		<b>Measure of Success</b>  RI educators in all 36 districts will receive professional development focused on nutrition.  RI educators in all 36 districts will receive professional development focused on physical activity.		
<b>Strategy</b>  Provide and increase access to professional development (PD) to RI teachers of health, physical education, family & consumer science, and others, to help ensure that RI students are receiving effective curricula and instruction.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/ Milestones</b>	<b>Dependencies/ Resources</b>
Finalize content and offer online PD programs on physical activity, nutrition, and PE standards	Jan	April 2006 and ongoing	At least three online PD programs conducted each year with participation by at least ten teachers each	Human and technical resources
Host quarterly networking and PD events for RI Teachers of Health	Jan	July 2006 and ongoing	Networking/PD sessions held each quarter with a minimum of ten teachers each	Human resources
Provide ongoing face-to-face PD opportunities to school staff	RIAPERD	January 2006 and ongoing	At least four PD programs conducted	Human resources and funding
Coordinate training and professional development efforts for RI PE teachers with URI and RIC	Jan, Andrea Vastis	August 2006 and ongoing	Training efforts coordinated	Human resources

<b>GOAL2: Objective 2.2</b> School physical education programs will align with the RI Physical Education Framework		<b>Measure of Success</b>  Physical education curricula and instruction in all 36 will be aligned with RI PE Framework.		
<b>Strategy</b>  Promote the RI Physical Education Framework and provide technical assistance to districts, schools and teachers to implement.				
Action Steps	Assigned to	Time Frame	Deliverable/ Milestones	Dependencies/ Resources
Develop tools/guidance for assessing alignment and/or back-mapping PE curriculum with RI PE Framework	Jan, Eliza Lawson, RIAHPERD & RIHSC PE/PA Subcommittee	September–December 2006	Information received	Human resources
Disseminate information and tools/guidance to district curriculum coordinators, District Wellness Subcommittees, and physical educators about the RI PE Framework	Jan, Eliza, RIAHPERD & RIHSC PE/PA Subcommittee	December 2006–February 2007	Information received	Human resources
Begin process of revising and updating RI PE Framework to align with revised National Standards for Physical Education	Jan, Eliza, RIAHPERD & RIHSC PE/PA Subcommittee	March 2007 and ongoing	Plan developed to revise RI PE Framework	Human resources; CDC or other funding; in-kind donation of staff time from partners
Finalize sample Physical Education Assessments and disseminate widely	Jan, Eliza, RIAHPERD & RIHSC PE/PA Subcommittee	March 2007 and ongoing	Sample assessments finalized and disseminated to all RI schools	Human resources; CDC or other funding; in-kind donation of staff time from partners

**GOAL 3: School-age children will eat healthier foods and become more active as a result of reduced screen time (television, videogames, computer use, etc.).**

<b>GOAL 3: Objective 2.1</b> Rates of daily screen time among school-aged youth will be reduced.			<b>Measure of Success</b> Screen time will be reduced among school-aged youth as evidenced by YRBS and SALT survey responses to screen time questions.	
<b>Strategy</b> Declare a no TV in New England week and organize a range of activities that engage families and communities.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>

**GOAL 4: School-age children will eat healthier food and become more active as a result of screening and interventions in healthcare settings.**

<b>GOAL 4: Objective 4.1</b> A plan for implementing BMI screening and/or surveillance in Rhode Island will be developed.			<b>Measure of Success</b> A written plan for conducting BMI screening and/or surveillance will be in place.	
<b>Strategy</b> Support the needs assessment and development of a plan for implementation of a surveillance system for healthy weights in Rhode Island.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Support planning of optimal surveillance system [See Data and Evaluation Action Plan Goal 2]				

## Appendix D2. Early Childhood Action Plan

**GOAL 1: All families receive consistent messages about healthy eating, physical activity, reduced screen time, and breastfeeding from programs, care providers, and others**

<b>Objective 1</b>  Create consistent messages for families and service providers around healthy eating and active living that can be used in a variety of settings			<b>Measure of Success</b>  WIC, the insurance plans, government agencies, and primary healthcare providers receive and deliver consistent messages by 2007	
<b>Strategy 1</b>  Evaluate current materials and integrate best practice information into a set of key themes/ideas that can be submitted to communications experts and developed for use in a variety of settings				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
<ul style="list-style-type: none"><li>Collect and compare existing materials in targeted behavior areas that are distributed to families in different settings</li></ul>	Barbara Robinson, Blythe Berger, Laurie Petrone, Ann Barone	Winter 2006 (completed)		Materials used by different programs and providers (ST)
<ul style="list-style-type: none"><li>Establish subgroup with key partners to review message consistency and content</li><li>Develop action steps for action plan</li></ul>	Early Childhood Action Team	March 2006 (in progress)		HEALTH Communications Unit, WIC, Early Head Start, Hasbro, other early childhood partner agencies (ST)
<ul style="list-style-type: none"><li>Review exiting materials to address inconsistencies and create consensus around message content.</li><li>Research and determine current best practices on discordant messages</li><li>Develop recommendations for message content for materials for family and clinician materials</li></ul>	Consistent Message Workgroup	Spring– Summer 2006		Existing early childhood materials and websites. i.e. American Academy of Pediatrics, Institutes of Medicine, CDC, American Dietary Association(ST)



<ul style="list-style-type: none"> <li>• Identify information networks through which materials are disseminated</li> <li>• Disseminate messages for review</li> <li>• Integrate feedback into messages</li> </ul>	Consistent Message Workgroup	Summer–Fall 2006		Early childhood partner organizations and providers (ST)
<ul style="list-style-type: none"> <li>• Identify sustainable funding for production and distribution of materials</li> <li>• Develop distribution mechanism</li> <li>• Identify mechanism/process to evaluate and integrate updated resources</li> </ul>	Consistent Message Workgroup	Fall 2006		CDC, HEALTH, Early childhood partner orgnaizaitons (LT)
<ul style="list-style-type: none"> <li>• Develop Materials</li> <li>• Test materials with target populations</li> <li>• Produce Materials</li> </ul>	HEALTH Communications Unit	Contingent on available funding	Consistent Messages workgroup	(LT)
<ul style="list-style-type: none"> <li>• Disseminate materials to information networks for distribution</li> </ul>	TBD	Contingent on available funding	HEALTH, Communications unit, early childhood partner organizations	(LT) ongoing

**GOAL 2: Early childhood professionals have the motivation, knowledge, tools, and resources to promote healthy eating and active living**

<b>Objective 1</b> Create a system for delivering technical assistance around working with families to promote healthy eating and active living		<b>Measure of Success</b>		
<b>Strategy 1</b> Train/Educate early childhood providers to promote healthy eating and active living				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
<ul style="list-style-type: none"><li>Develop an outline for topics to be included in training plan for early childhood providers</li><li>Assessment (anthropometric and key problematic behaviors)<ul style="list-style-type: none"><li>---Birth to 23 months</li><li>---2–5 years</li><li>---Communications with families</li><li>---Age appropriate prevention messages</li><li>---Age-appropriate treatment messages</li></ul></li></ul>	1. Hollie Raynor 2. Robin Ethchingham	3–6 months		
<ul style="list-style-type: none"><li>Develop methods to disseminate training</li><li>PowerPoint presentations that can be used for presentations at organizational meetings</li><li>Written statements that can be included in newsletters, Videotapes, Internet*, Workshops</li></ul> <p>*The power point presentations and written statements could be added to already standing websites</p>	1. Hollie Raynor (We have some of these: PowerPoint presentations and Written statements that we have been doing already) 2. Robin Etchingham	After Action Step 1 is accomplished—on going	<ul style="list-style-type: none"><li>Early Intervention Program Activities</li><li>Child Care Support Network</li></ul>	

**GOAL 2: Early childhood professionals have the motivation, knowledge, tools, and resources to promote healthy eating and active living**

<b>Objective 2</b> Create a system for delivering technical assistance around working with families to promote healthy eating and active living		<b>Measure of Success</b>		
<b>Strategy 1</b> Create “tool kits” and provide resources, including referral sources for different types of early childhood service providers				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
<ul style="list-style-type: none"><li>Develop decision tree based upon anthropometric status, key problematic behavior and other physiologic risk factors<ul style="list-style-type: none"><li>Birth to 23 months</li><li>2–5 years</li></ul></li></ul>		3–6 months		Guidelines for a primary care setting have been developed by MCHB
<ul style="list-style-type: none"><li>Develop tool kit (includes)<ul style="list-style-type: none"><li>1. BMI percentile charts</li><li>2. BMI calculator (\$)</li><li>3. Ways to assess problematic behaviors</li><li>4. Referral sources (based upon results of action step 1)</li><li>5. Suggestions for education materials to provide (based upon results of action step 1)</li></ul></li></ul>	Robin Etchingham	After completion of action step 1 and goal 1		

### GOAL 3: All families are supported by an environment that promotes healthy eating and active living

<b>Objective 1</b> Develop and implement policies that allow early childhood programs and professionals to support the four target behaviors that impact healthy eating and active living			<b>Measure of Success</b> Opportunities for creating consistent policies are identified and recommendations are finalized	
<b>Strategy 1</b> Create consensus about the key areas for change				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
• Identify key organizations and contact names	Who is principally responsible	Start and end dates	This may very likely be a <u>structure</u> or <u>process</u> measure	Community lead person/agency (ST)
• Meet with these organizations				(ST)
• Survey for current practices				(ST)
• Identify key areas for change				(LT)
<b>Strategy 2</b> Evaluate current policies at the local, state and national level and assess opportunities to develop new policies				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
• Learn current policies at national/state levels				(ST)
• Evaluate these policies for effectiveness, relevance and ability to comply				(ST)
• Determine cycle of re-authorization				(ST)
• See what we want and what we can get				(LT)
• Prioritize what change is most valuable				(LT)
• Gain support for recommended changes in the community (community organizations, legislature, etc.)				(LT)

**GOAL 3: All families are supported by an environment that promotes healthy eating and active living**

<b>Objective 2</b> Create and sustain an environment that supports healthy eating, physical activity, reducing screen time, and breastfeeding			<b>Measure of Success</b>	
<b>Strategy 1</b> Identify opportunities for creating policy change or environmental improvement				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
<ul style="list-style-type: none"><li>Distribute lists of public parks, opportunities for physical education, Farmers' Markets, etc.</li></ul>				
<ul style="list-style-type: none"><li>Evaluate menus and vending machines at schools</li></ul>				(ST)
<ul style="list-style-type: none"><li>Evaluate physical activity policies at schools (i.e., time frames, offered at all)</li></ul>				(ST)
<ul style="list-style-type: none"><li>Evaluate environment for safety (ex. Bike path) Identify opportunities for physical activity in communities</li></ul>				(ST)

## Appendix D3. Communities Action Plan

### GOAL 1: Support Communities to Prevent and Reduce Childhood Overweight and Obesity

<b>Objective 1.1</b> Create a community-based infrastructure that will support local approaches to preventing and reducing childhood overweight and obesity.			<b>Measures of Success</b> <ul style="list-style-type: none"><li>• Coalitions formed</li><li>• Assessments completed</li><li>• Action plans developed and implemented by pilot communities.</li><li>• Action plans developed and implemented by additional communities</li></ul>	
<b>Strategy 1.1.a</b> Assist pilot communities to assess local needs and complete action plans to prevent and reduce overweight and obesity.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Identify existing coalitions, networks or other groups who have recognized overweight and obesity prevention/reduction as a local priority.	Laurie P–list of funded coalitions  Rilwan–list of MHPCs  Mia–list of CATCH Projects	Mar 2006	<ul style="list-style-type: none"><li>• Community coalitions, networks, and/or other groups identified.</li><li>• RFP issued.</li></ul>	<ul style="list-style-type: none"><li>•</li></ul>
Fund three pilot communities to form coalitions and complete comprehensive community assessments	Ana and Laurie	Apr 06–Mar 07	<ul style="list-style-type: none"><li>• Three pilot communities will be awarded (Task 1) planning grants by April 2006.</li></ul>	<ul style="list-style-type: none"><li>• DFH and CHEW will provide \$10,000 planning grants to three communities to form coalitions and complete assessments.</li></ul>
Fund three pilot communities to complete community assessments and develop action plans.	Ana and Laurie	Apr 06–Mar 07	<ul style="list-style-type: none"><li>• Three pilot communities will be awarded (Task 2) planning grants by April 2006.</li></ul>	<ul style="list-style-type: none"><li>• DFH and CHEW will provide \$10,000 planning grants to three communities to develop obesity prevention &amp; reduction plans.</li></ul>

Assist pilot communities to complete or expand community assessments and analyze results	IHW Program Manager (IHW PM) DFH Staff member		<ul style="list-style-type: none"> <li>Six pilot communities will complete/expand comprehensive community assessments (Task 1 and 2)</li> </ul>	<ul style="list-style-type: none"> <li>Assessment tool will be developed by Action Team, IHW, and FH</li> <li>DFH and CHEW provides data and assists communities to conduct qualitative research and analyze findings.</li> </ul>
Assist pilot communities to develop obesity prevention strategies based on community assessment.	IHW PM DFH Staff member	Oct–Dec 2006	<ul style="list-style-type: none"> <li>Strategies identified.</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assists communities to utilize findings to develop strategies.</li> <li>DFH and CHEW provides information on best practices</li> </ul>
Assist pilot communities to develop action plans.	IHW PM DFH Staff member	May–Sep 2006	<ul style="list-style-type: none"> <li>Three pilot communities will develop action plans by March 2007 (Task 2).</li> </ul>	<ul style="list-style-type: none"> <li>Action plans will include strategies to improve nutrition, increase physical activity, promote breastfeeding and reduce screen time, and will incorporate best practices.</li> </ul>
Assist pilot communities to identify funding sources and other resources to support implementation.	IHW PM DFH Staff member	Jan–Mar 2007	<ul style="list-style-type: none"> <li>Resources identified and commitments secured.</li> <li>Strategic plan completed.</li> <li>Some initial activities implemented.</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assist communities to identify and secure resources.</li> </ul>
Assist pilot communities to evaluate projects.	Data and Evaluation Action Team representative	Apr–Jun 2007	<ul style="list-style-type: none"> <li>Evaluation completed.</li> <li>Evaluation findings incorporated into toolbox designed to assist other communities to develop and implement</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assist</li> </ul>

			overweight/obesity action plans.	
Disseminate evaluation findings	Stacie	Jul–Sep 2007	<ul style="list-style-type: none"> <li>Evaluation findings disseminated.</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assist</li> </ul>
Recognize successful pilot communities and programs through media events.	Stacie	Ongoing	<ul style="list-style-type: none"> <li>Unpaid media</li> <li>Events held</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assist</li> </ul>
<b>Strategy 1.1.b</b> Use successful community models to assist additional communities in assessing local needs and completing action plans to prevent and reduce overweight and obesity.				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Create a network to enable pilot communities to share successes and challenges.	IHW PM DFH Staff member	Jun–Sep 2006	<ul style="list-style-type: none"> <li>Network established &amp; convened</li> <li>Web pages developed</li> <li>Listserve established</li> </ul>	<ul style="list-style-type: none"> <li>Build on IHW Website.</li> </ul>
Create toolboxes based on successful pilot communities and programs.	Stacie	Jun–Sep 2006	<ul style="list-style-type: none"> <li>Toolboxes created</li> </ul>	<ul style="list-style-type: none"> <li>Toolbox information will be culled from successful methods, program activities, etc. conducted in pilot phase and other successful community-based projects.</li> <li>Toolboxes will include</li> </ul>



				<p>strategic planning models, assessment and evaluation tools, resource lists, potential funding sources, model programs, and best practices.</p> <ul style="list-style-type: none"> <li>• DFH and CHEW assist</li> </ul>
Communicate successful methods and programs to additional communities.	Stacie	Oct 06–ongoing	<ul style="list-style-type: none"> <li>• Toolboxes disseminated</li> <li>• Events held</li> <li>• Presentations given</li> <li>• Additional communities engaged in network</li> </ul>	<ul style="list-style-type: none"> <li>• DFH and CHEW assist</li> </ul>
Assist communities in utilizing toolbox to assess local needs, develop plans, identify funding, and implement and evaluate programs.	IHW PM DFH Staff member	Ongoing	<ul style="list-style-type: none"> <li>• Workshops held</li> </ul>	
Revise toolbox based on additional communities and programs	Stacie	Ongoing	<ul style="list-style-type: none"> <li>• Toolbox Revised</li> </ul>	<ul style="list-style-type: none"> <li>• DFH and CHEW assist</li> </ul>
Recognize successful pilot communities and programs through media events.	Stacie	Ongoing	<ul style="list-style-type: none"> <li>• Media events held</li> </ul>	<ul style="list-style-type: none"> <li>• DFH and CHEW assist</li> </ul>
<b>Strategy 1.1.c.</b> Develop a comprehensive community assessment tool to be used by coalitions				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Research existing community assessment tools	Eliza–PA Gemma–Nutrition DFH Staff (Mia)	March 06	<ul style="list-style-type: none"> <li>• Inventory of assessment tools</li> </ul>	<ul style="list-style-type: none"> <li>• See RFP for assessment requirements</li> </ul>

				<ul style="list-style-type: none"> <li>Data and Evaluation Action Team should help with review of tools and methods for data collection by coalitions</li> </ul>
Identify those that best fit the needs of coalitions	Eliza DFH Staff	April 06	<ul style="list-style-type: none"> <li>Appropriate sections of tools identified</li> </ul>	<ul style="list-style-type: none"> <li>Data and Evaluation Action Team should help with review of tools and methods for data collection by coalitions</li> </ul>
Modify and develop survey tool	Data and Evaluation Action Team representative	April 06	<ul style="list-style-type: none"> <li>Tool created</li> </ul>	<ul style="list-style-type: none"> <li>Data and Evaluation Action Team should help with review of tools and methods for data collection by coalitions</li> <li>DFH and CHEW assist</li> </ul>
Train coalitions on use of tool		When funded	<ul style="list-style-type: none"> <li>Trainings held</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assist</li> </ul>
Publish the results of the inventory / assessment (online and print)	Stacie	December 06	<ul style="list-style-type: none"> <li>Inventory posted on web</li> <li>Inventory printed</li> </ul>	<ul style="list-style-type: none"> <li>DFH and CHEW assist</li> </ul>

## GOAL 2: Support communities to make changes that encourage physical activity

<b>Objective 2.1</b> Improve community infrastructure to support walking and biking for children			<b>Measures of Success</b> <ul style="list-style-type: none"><li>• Safe Routes to School Programs implemented</li><li>• Community master plans revised</li><li>• Increased numbers of children walking/biking for transportation or recreation</li></ul>	
<b>Strategy 2.1.a</b> Create a state infrastructure that supports Safe Routes to School programs in communities				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Research				
Research existing Safe Routes Programs	Ronnie and Eliza	Jan 06–Mar 06	<ul style="list-style-type: none"><li>• Other programs' toolkits</li></ul>	
Development				
Establish a Statewide Safe Routes Advisory Team/Steering Committee	Ronnie Sirota	Mar 06	<ul style="list-style-type: none"><li>• List of members</li><li>• Meeting agendas</li></ul>	
Develop RFP	Ronnie	May 06	<ul style="list-style-type: none"><li>• RFP completed</li></ul>	
Develop SR2S Toolkit for RI communities	Ronnie and Eliza	June06–Aug 06	<ul style="list-style-type: none"><li>• Toolkits created</li></ul>	<ul style="list-style-type: none"><li>• Other programs materials</li></ul>
Implementation				
Hold SR2S informational workshops for community coalitions, schools and community members	Ronnie and Eliza	April–May 2006	<ul style="list-style-type: none"><li>• Workshops held</li><li>• Agendas</li><li>• Participant lists</li></ul>	<ul style="list-style-type: none"><li>• Consider Mark Fenton as consultant</li><li>• Previous walkability workshops hosted by Ronnie</li></ul>
Issue RFP to fund Safe Routes in 1–10 communities	Ronnie	Dependent on DOT	<ul style="list-style-type: none"><li>• Published RFP</li></ul>	<ul style="list-style-type: none"><li>• Number of communities funded will be dependent on available funding and requirements.</li><li>• Funded communities will address physical infrastructure improvements, safety</li></ul>

				(enforcement), and educational programs.
Assist communities to develop teams and plans, and to apply for funding	Eliza and Ronnie	Sep 2006	<ul style="list-style-type: none"> <li>• Meetings with communities</li> <li>• Community Safe Routes teams created</li> <li>• Toolkits disseminated</li> <li>• Walkability audits completed</li> <li>• Safe Routes plans/proposals completed</li> <li>• Identify funding sources</li> </ul>	
Assist Safe Routes Teams in funded communities to implement Safe Routes plans	Eliza and Ronnie	Ongoing beginning when communities are funded	<ul style="list-style-type: none"> <li>• Communities funded</li> <li>• Plans implemented</li> </ul>	<ul style="list-style-type: none"> <li>• Walking School buses will be included as part of the programming</li> <li>• Health Ed curriculum will tie into safety</li> <li>• Safety and PA events at schools and in the community will be part of programming</li> </ul>
<b>Advocacy and Media</b>				
Publicize Safe Routes Program and release of RFP	Stacie	March 06–May 06	<ul style="list-style-type: none"> <li>• Un-paid media (op eds, editorials)</li> <li>• Media partnerships</li> <li>• Events held</li> </ul>	<ul style="list-style-type: none"> <li>• Kids First</li> <li>• DOE</li> </ul>
Recognize successful Safe Routes programs through media events.	Stacie	Ongoing	<ul style="list-style-type: none"> <li>• Un-paid media (op eds, editorials)</li> <li>• Media partnerships</li> <li>• Events held</li> </ul>	
Communicate successful methods and programs to additional communities.	Stacie	Ongoing	<ul style="list-style-type: none"> <li>• Materials and toolkits disseminated</li> </ul>	

			<ul style="list-style-type: none"> <li>Events held</li> <li>Presentations (PTAs, school wellness councils, unions, community coalition) given</li> </ul>	
<b>Evaluation</b>				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative	Ongoing		
<b>Strategy 2.1.b</b> Revise comprehensive community plans to improve walkability.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Timeframe</b>	<b>Deliverables/Milestones</b>	<b>Dependencies/Resources</b>
<b>Research</b>				
Assess municipal plans for walkability		2007	<ul style="list-style-type: none"> <li>Assessment tool</li> <li>Completed assessments</li> </ul>	<ul style="list-style-type: none"> <li>Availability of plans</li> </ul>
Research and identify model plans	Eliza	2007	<ul style="list-style-type: none"> <li>Inventory of models</li> </ul>	<ul style="list-style-type: none"> <li>Models need to be appropriate for diverse communities</li> <li>In-state and out-of-state models will be examined.</li> </ul>
Research community leader training programs or workshops		2007	<ul style="list-style-type: none"> <li>Programs identified</li> </ul>	<ul style="list-style-type: none"> <li>Does Grow Smart RI have a program?</li> <li>LGC, University of Miami School of Architecture program, NCI</li> </ul>
<b>Development</b>				
Develop criteria to be included in revised plans		2007	<ul style="list-style-type: none"> <li>Criteria developed</li> </ul>	
Develop/adopt community leader training program	Eliza	2007	<ul style="list-style-type: none"> <li>Training program developed or adopted</li> </ul>	
<b>Implementation</b>				
Educate leaders and elected officials on community	Eliza	2007	<ul style="list-style-type: none"> <li>Presentation (town</li> </ul>	<ul style="list-style-type: none"> <li>Community walkability</li> </ul>

walkability and best practices / successful models and Action Team approved standards			meetings) <ul style="list-style-type: none"> <li>• Materials</li> <li>• Media</li> </ul>	includes both issues of land use and zoning. <ul style="list-style-type: none"> <li>• Build off the success of Safe Routes to School Programs</li> <li>• Build off the success of parks, trails, and facilities promotion</li> <li>• Use Goal 1 infrastructure, where appropriate</li> </ul>
Assist communities to hold town meetings (charrettes, visioning)		2007	<ul style="list-style-type: none"> <li>• Meetings held</li> </ul>	<ul style="list-style-type: none"> <li>• LGC, University of Miami School of Architecture program, NCI</li> <li>• Existing tools</li> </ul>
Assist town planners to revise comprehensive plans		2007	<ul style="list-style-type: none"> <li>• Materials (model plans)</li> <li>• Presentations or discussions with planners</li> </ul>	<ul style="list-style-type: none"> <li>• Revisions can include changes in zoning and subdivision ordinances, land acquisition, transportation planning, park and trail development, and school sitting.</li> <li>• Use Goal 1 infrastructure, where appropriate</li> </ul>
Assist communities in launching new plans	Eliza	2007	<ul style="list-style-type: none"> <li>• Events / kick-offs held</li> <li>• Media</li> </ul>	<ul style="list-style-type: none"> <li>• Build off the success of Safe Routes to School Programs</li> <li>• Build off the success of parks, trails, and facilities promotion</li> <li>• Use Goal 1 infrastructure, where appropriate</li> </ul>
Advocacy and Media				
Recognize successful communities through media events.	Stacie	2007–Ongoing	<ul style="list-style-type: none"> <li>• Un-paid media (op eds, editorials)</li> <li>• Media partnerships</li> </ul>	

			<ul style="list-style-type: none"><li>• Events held</li></ul>	
Communicate successful methods to additional communities.	Stacie	2007–Ongoing	<ul style="list-style-type: none"><li>• Materials and toolkits disseminated</li><li>• Events held</li><li>• Presentations given</li></ul>	
Evaluation				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative	2007–Ongoing		
<b>Objective 2.2</b> Improve community-based opportunities for physically active recreation.			<b>Measure of Success</b> <ul style="list-style-type: none"><li>• Number of promotional activities</li><li>• Number of parks, trails and facilities improved</li><li>• Increased usage of parks, trails, and facilities</li><li>• Increased numbers and usage of after-school physical activity programs.</li><li>• Increased numbers and usage of community-based physical activity programs.</li></ul>	
<b>Strategy 2.2.a</b> Promote the use of existing parks, trails, recreation facilities, and non-traditional spaces				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Timeframe</b>	<b>Deliverables/Milestones</b>	<b>Dependencies/Resources</b>
Research				
Research other programs that link CBOs to parks, trails, and rec facilities	Eliza	2007	<ul style="list-style-type: none"><li>• Inventory of model programs</li></ul>	
Research options for non-traditional rec spaces to be used for physical activity (farms, schools)		2007	<ul style="list-style-type: none"><li>• Inventory of model programs, promising practices, and innovative ideas</li></ul>	
Development				
Develop model policies for non-traditional rec spaces to be used for physical activity		2007	<ul style="list-style-type: none"><li>• Model policies developed</li></ul>	

Implementation				
Assist coalitions to organize promotional events that link to community parks, trails, and rec facilities	Eliza and Stacie	2007	<ul style="list-style-type: none"> <li>Events (park clean ups, risk factor screenings, Farmers' Markets)</li> <li>Media coverage</li> <li>Event toolkits</li> </ul>	<ul style="list-style-type: none"> <li>VERB and other campaigns/materials that can serve as a basis for events</li> </ul>
Assist coalitions in creating or modifying ongoing programs to ensure continued utilization of parks, trails, and rec facilities	Eliza	2007	<ul style="list-style-type: none"> <li>Programs developed or modified</li> </ul>	<ul style="list-style-type: none"> <li>Pedometer walking challenge, walking clubs, Hearts N Parks</li> </ul>
Educate communities about benefits of park, trail, and rec facility renovations	Eliza	2007	<ul style="list-style-type: none"> <li>Presentations developed</li> <li>Presentations to town councils about community and economic benefits</li> </ul>	
Assist coalitions to develop plans and ID funding for park, trail, and rec facility renovations		2007	<ul style="list-style-type: none"> <li>Plans developed</li> <li>Funding identified</li> </ul>	<ul style="list-style-type: none"> <li>Strategies will be dependent on the type of area targeted. These may include: Researching appropriate models (injury prevention center), partnering, garnering community support, identifying funding sources, presenting to appropriate leadership</li> </ul>
Assist coalitions in the implementation of policies that allow non-traditional rec spaces to be used for physical activity		2007	<ul style="list-style-type: none"> <li>Policies implemented</li> </ul>	
Advocacy and Media				



Use community assessment results to create and publish a statewide directory of physical activity resources	Stacie	2007	<ul style="list-style-type: none"> <li>Published physical activity directory</li> <li></li> </ul>	
Recognize successful communities' efforts through media events.	Stacie	Ongoing	<ul style="list-style-type: none"> <li>Un-paid media (op eds, editorials)</li> <li>Media partnerships</li> <li>Events held</li> </ul>	
Communicate successful methods to additional communities.	Stacie	Ongoing	<ul style="list-style-type: none"> <li>Materials and toolkits disseminated</li> <li>Events held</li> <li>Presentations given</li> </ul>	
<b>Evaluation</b>				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative	2007		
<b>Strategy 2.2.b</b> Assist ASPs and CBOs to integrate physical activity programs into their existing programs				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Timeframe</b>	<b>Deliverables/Milestones</b>	<b>Dependencies/Resources</b>
<b>Research</b>				
Identify best practices in the after-school and CBO setting	Eliza	2007	<ul style="list-style-type: none"> <li>List of programs, pros/cons, costs, training options</li> </ul>	<ul style="list-style-type: none"> <li>SPARK PE, CATCH Kids Club, DDR</li> </ul>
Research funding opportunities to support statewide staff training and implementation	Eliza	2007	<ul style="list-style-type: none"> <li>Funding identified</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Development</b>				
Meet with ASP and CBO		2007	<ul style="list-style-type: none"> <li>Meetings or focus groups</li> </ul>	<ul style="list-style-type: none"> <li>Consider starting with</li> </ul>

leaders to assess their needs for physical activity programming and barriers to implementation			•	MHPCs and/or 21 <sup>st</sup> CCLCs
Select/Develop appropriate program	Eliza	2007	•	
Implementation				
Apply for funding to support statewide or multiple community leader training	Eliza	2007	• Applications	
Assist communities in applying for funding for implementation		2007	• Applications	
Host leader training program		When funded	• Trainings held • List of attendees	
Assist communities in implementation of selected PA program.		2007	• Programs implemented	
Advocacy and Media				
Communicate benefits of PA and program to ASPs and CBOs	Stacie	2007	• Materials • Presentations	
Evaluation				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative	2007		

### GOAL 3: Support communities to make changes that encourage healthy eating

Objective 3.1. Increase healthy food options in the community			Measure of Success	
Strategy 3.1.a Create a healthy food awards program for restaurants and cafeterias.				
Action Steps	Assigned to	Timeframe	Deliverables/Milestones	Dependencies/Resources
Research				
Research existing programs (both in and out of state)		Mar 2006	<ul style="list-style-type: none"><li>One page summary document of existing programs (present to Communities Action Team)</li></ul>	<ul style="list-style-type: none"><li>Resources: Gemma Gorham (Nutrition Specialist), Somerville Program, North Carolina Program, Pawtucket?</li></ul>
Create list of potential industry partners (particularly targeting RI-based restaurants marketing to families) to help with development	Ann-Marie	Mar 2006	<ul style="list-style-type: none"><li>List of potential partners</li></ul>	<ul style="list-style-type: none"><li>Resources: IHW staff may have a list of partners</li></ul>
Development				
Partner with Governor's Wellness Initiative to review restaurant awards program action plan	IHW PM	Mar 06	<ul style="list-style-type: none"><li>Meetings held</li><li>Approval of action plan</li></ul>	
Contact industry partners to help create program	Ann-Marie	April 2006	<ul style="list-style-type: none"><li>Calls made / Emails sent</li><li>Partners recruited for meeting</li></ul>	
Meet with partners to review concept and get input		April 2006		
Develop awards program (including application process, criteria for awards, timeline, staffing, ownership, funding)	Stacie	April–June 2006	<ul style="list-style-type: none"><li>Draft protocol</li></ul>	<ul style="list-style-type: none"><li>Resources: Current programs;</li><li>Ideas for criteria for awards will include:</li><li>Family friendly recognition</li></ul>

				(breastfeeding support) <ul style="list-style-type: none"> <li>• Half portions / Able to take home foods</li> <li>• Healthy foods (need criteria for food; to meet a certain number or percentage of menu; need to identify on menu)</li> <li>• Nutrient information at point of purchase</li> <li>• Child menu</li> <li>• On the side</li> </ul>
Develop program brand and materials (symbol, window sticker, etc.)	Stacie and Ann-Marie	May–July 2006	<ul style="list-style-type: none"> <li>• Program materials</li> </ul>	<ul style="list-style-type: none"> <li>• Shape Up Somerville materials development</li> </ul>
Conduct focus groups with consumers / industry partners to test concept and program materials	Stacie	July–Aug 2006	<ul style="list-style-type: none"> <li>• Focus group results</li> </ul>	<ul style="list-style-type: none"> <li>• ICHP resources</li> </ul>
Finalize protocol and materials	Stacie	Sept 2006	<ul style="list-style-type: none"> <li>• Final protocol and materials</li> <li>• Restaurant toolkit for coalitions</li> </ul>	
<b>Implementation</b>				
Provide TA to restaurants and coalitions to assist with applications process and participation		Sept 2006–Ongoing		
<b>Advocacy and Media</b>				
Publicize program via a websites and weblinking	Stacie and Ann-Marie	Sept 2006–Ongoing		
Partner with the media to promote the program	Stacie and Ann-Marie	Sept 2006–Ongoing	<ul style="list-style-type: none"> <li>• Episode of TV Maitre d' focused on program.</li> <li>• Public service &amp; promotion</li> </ul>	

			announcements devoted to topic <ul style="list-style-type: none"> <li>• RI Monthly has devoted to topic</li> <li>• Projo has column/food issue devoted to topic</li> </ul>	
Publish a list of recognized restaurants on the web	Stacie	Sept 2006–Ongoing	<ul style="list-style-type: none"> <li>• List published on web</li> </ul>	
• Evaluation				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative			
<b>Strategy 3.1.b.</b> Assist communities in implementing Master Gardeners Programs in community-based organizations and after-school programs, especially in areas that lack sufficient availability of fresh produce.				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Research				
Research best practices		Jun 06–Aug 06	<ul style="list-style-type: none"> <li>• Inventory of model programs</li> </ul>	
Development				
Partner with Kids First & Southside Land Trust to determine how gardening program can be expanded to ASPs and CBOs		Jun 06–Aug 06		
Meet with CBOs and ASP to assess needs, barriers, etc.		Aug 06		
Develop program materials / toolkit		Aug 06	<ul style="list-style-type: none"> <li>• Community gardens toolkit developed</li> </ul>	
Implementation				
Provide TA to CBO and ASPs implementing gardening program		Aug 06–Ongoing		
Advocacy and Media				
Recognize successful	Stacie	Aug 06–Ongoing	<ul style="list-style-type: none"> <li>• Un-paid media (op eds,</li> </ul>	

communities' efforts through media events.			editorials) • Media partnerships • Events held	
Communicate successful methods to additional communities.	Stacie	Aug 06–Ongoing	• Materials and toolkits disseminated • Events held • Presentations given	
<b>Evaluation</b>				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative			
<b>Strategy 3.1.c</b> Expand the healthy food recognition program to food markets (supermarkets, convenience stores, etc.)				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Adapt Action Steps from Strategy 3.1.a		Jan 2007		
<b>Strategy 3.1.d</b> Create a tax incentive program for markets in underserved neighborhoods to provide low-cost, high quality fruits and vegetables.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
<b>Research</b>				
Research existing programs (other states, etc.)				• HEALTH Staff (Gemma Gorham, Carol Hall-Walker, • Betty Harvey, Helen Drew
Conduct focus groups with markets and community to determine needs / barriers				• ICHP focus group resources
<b>Development</b>				
Partner with markets and local farmers to develop program				
Develop program protocol				
Review with partners and modify				

as needed				
Develop program materials				
Implementation				
Educate policy makers				
Provide TA to coalitions and markets implementing program				
Advocacy and Media				
Partner with the media	Stacie			
Run a media advocacy campaign to support efforts	Stacie			
Provide TA to community coalitions and local farmers in advocacy efforts	Stacie			
Evaluation				
Evaluate the program (process and outcomes measures)	Data and Evaluation Action Team representative			
<b>Objective 3.2</b> Limit unhealthy food advertisements to children			<b>Measure of Success:</b> Reduction in the number of ads	
<b>Strategy 3.2.a</b> Implement legislation to limit unhealthy food advertisements around schools.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Timeframe</b>	<b>Deliverables/Milestones</b>	<b>Dependencies/Resources</b>
• Research				
Research any existing legislation, zoning policies, potential models, etc.				
Focus Groups with community to assess barriers / needs				• Cities, Counties, and Schools Partnership (California)
Discuss project feasibility with policy/legislation consultant.				• Consider legislation to enable towns to create floating zones around schools (perhaps in relation

				to the # of healthy food options available)
Development				
Partner with District Wellness Subcommittees, community coalitions, PTA, Health Schools Coalition, Kids First to develop legislation				
Draft legislation				
Submit legislation				
Implementation				
Draft program materials				
Test materials with audiences				
Provide TA to markets implementing program				
Provide TA to communities				
Advocacy and Media				
Partner with the media	Stacie			
Educate policy makers	Stacie			
Run a media advocacy campaign to support efforts	Stacie			
Evaluation				
Evaluate the legislation (process and outcome measures)	Data and Evaluation Action Team representative			
Objective 3.3 Improve community-based options for nutrition education programs			Measure of Success	
Strategy 3.3.a Assist ASPs and CBOs to integrate evidence-based nutrition programs into their existing programs				
Action Steps	Assigned to	Timeframe	Deliverables/Milestones	Dependencies/Resources
Research				



Identify best practices in the after-school and CBO setting	Gemma	2007	<ul style="list-style-type: none"> <li>List of programs, pros/cons, costs, training options</li> </ul>	Catch Kids Club
Research funding opportunities to support statewide staff training and implementation		2007		
Development				
Meet with ASP and CBO leaders to assess their needs for nutrition programming and barriers to implementation		2007	<ul style="list-style-type: none"> <li>Meetings or focus groups</li> </ul>	<ul style="list-style-type: none"> <li>Consider starting with MHPCs and/or 21<sup>st</sup> CCLCs</li> </ul>
Select/Develop appropriate program		2007		
Implementation				
Apply for funding to support statewide or multiple community leader training		2007		
Assist communities in applying for funding for implementation		2007		
Host leader training program		When funded		
Assist communities in implementation of selected nutrition program.		2007		
Advocacy and Media				
Communicate benefits of healthy eating and program to ASPs and CBOs	Stacie	2007	<ul style="list-style-type: none"> <li>Materials</li> <li>Presentations</li> </ul>	
Evaluation				
Evaluate the program (process and outcome measures)	Data and Evaluation Action Team representative	2007		

## Appendix D4. Communications Action Plan

<b>Members:</b>	Stacie Bowman (Co-chair) Andrea Bagnall-Degos (Co-chair) Molly Frederickson Lenore Fournier Andrea Vastis
<b>Partners:</b>	Annmarie Reddy JoAnna Williams
<b>Role:</b>	The Obesity Communications Action Team will provide communications support to other obesity action teams. The level of support will be assessed at the beginning of each project. In addition, the Team will lead overarching communication efforts in support of statewide obesity prevention efforts.
<b>Values:</b>	Cultural competency Linguistic competency Clarity and readability Consistency Collaboration Multiple channel Social marketing

**GOAL 1      Create communications infrastructure for addressing obesity across the lifespan in Rhode Island.**

<b>Objective 1.1</b> Form an Obesity Communications Action Team.			<b>Measures of Success</b> Team formed	
<b>Strategy 1.1.a</b>				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Identify initial group members	<ul style="list-style-type: none"><li>Laurie Petrone</li></ul>	Jan 3, 2006	<ul style="list-style-type: none"><li>Member contact list</li></ul>	
Hold initial meeting to establish roles and responsibilities	<ul style="list-style-type: none"><li>Team</li></ul>	Jan 13, 2006	<ul style="list-style-type: none"><li>First meeting</li><li>Meeting minutes</li></ul>	
Establish a system for running meetings (agendas, note-taking, meeting minutes, co-chairs update)	<ul style="list-style-type: none"><li>Team</li></ul>	Feb 2006	<ul style="list-style-type: none"><li>Agendas (Stacie)</li><li>Note-taking and meeting minutes (Alternate team members)</li><li>Co-chairs update at meetings and via email (Stacie and Andrea will alternate)</li></ul>	
Establish a process for working with other Action Teams	<ul style="list-style-type: none"><li>Team</li></ul>	March 2006	<ul style="list-style-type: none"><li>Each team member will work with their other Action Team to solidify their communication needs and timeline</li><li>Completed Communications Request Forms for specific projects</li></ul>	<ul style="list-style-type: none"><li>Adapt DOH Communications Request Form</li><li>Issues to address: roles and responsibilities, funding, additional partners, research</li></ul>
Establish meeting dates, times, and places and sending meeting reminders	<ul style="list-style-type: none"><li>Stacie</li></ul>	Feb / March 2006	<ul style="list-style-type: none"><li>Calendar of meetings for every other Tuesday from 2:30 to 4:00</li><li>Meeting reminders sent</li></ul>	

**GOAL 1**

(continued)

<b>Objective 1.2</b> Expand the Obesity Communications Action Team.			<b>Measures of Success</b>	
<b>Strategy 1.2.a</b>			<ul style="list-style-type: none"> <li>• New membership recruited</li> <li>• New partnerships formed</li> </ul>	
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Brainstorm about possible new members	<ul style="list-style-type: none"> <li>• Team</li> </ul>	Jan–Feb 2006	<ul style="list-style-type: none"> <li>• List of potential members*</li> </ul>	<ul style="list-style-type: none"> <li>• Representatives (with communication skills) from four target behaviors (breastfeeding, nutrition, physical activity, &amp; screen time) and settings (worksites, healthcare, communities, school, childcare, restaurants, grocers, Farmers' Markets, policy/legislation).</li> <li>• Media members should be solicited (TV, print, radio, minority media)</li> <li>• OPC members</li> </ul>
Request suggestions for new members from co-chairs	<ul style="list-style-type: none"> <li>• Stacie / Andrea</li> </ul>	Feb 10, 2006	<ul style="list-style-type: none"> <li>• List of potential members</li> </ul>	
Invite potential members to participate at the “member” or “partner” level	<ul style="list-style-type: none"> <li>• Appropriate team member</li> </ul>	March 2006	<ul style="list-style-type: none"> <li>• Calls</li> <li>• Emails</li> </ul>	
Add new members and partners to contact list and action plan	<ul style="list-style-type: none"> <li>• Stacie</li> </ul>	March 2006	<ul style="list-style-type: none"> <li>• Updated contact list</li> <li>• Updated action plan</li> </ul>	

\* Carol Hall-Walker, Margaret Thomas, Meg Reggs (RIPHA), Maureen Ludd (BCBS), Valerie (Kentucky), Mary Connor (Cox), Melissa Campbell (ACS), Lisa (NHPRI)

**GOAL 1**

(continued)

<b>Objective 1.3</b> Create an action plan for the Obesity Communications Action Team			<b>Measures of Success</b> <ul style="list-style-type: none"><li>Action plan created</li></ul>	
<b>Strategy 1.3.a</b>				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Review other Action Teams’ action plans to identify areas of overlap, opportunities for collaboration, and communication gaps	<ul style="list-style-type: none"><li>Team</li></ul>	Jan 3–Jan 13, 2006		
Brainstorm about goals and objectives	<ul style="list-style-type: none"><li>Team</li></ul>	Jan 13, 2006	<ul style="list-style-type: none"><li>Meeting minutes</li></ul>	
Identify priorities	<ul style="list-style-type: none"><li>Team</li></ul>	Jan 13, 2006	<ul style="list-style-type: none"><li>Meeting minutes</li></ul>	
Draft action plan	<ul style="list-style-type: none"><li>Stacie</li></ul>	Jan 16–Jan 24, 2006	<ul style="list-style-type: none"><li>Draft action plan</li></ul>	
Review action plan	<ul style="list-style-type: none"><li>Team</li></ul>	Jan 24–Jan 31, 2006	<ul style="list-style-type: none"><li>Team comments</li></ul>	
Revise action plan based on comments	<ul style="list-style-type: none"><li>Stacie</li></ul>	Jan 31–Feb 9, 2006	<ul style="list-style-type: none"><li>Revised action plan</li></ul>	
Submit draft action plan to Laurie	<ul style="list-style-type: none"><li>Stacie</li></ul>	Feb 9, 2006	<ul style="list-style-type: none"><li>Email to Laurie</li></ul>	
Present action plan to co-chairs	<ul style="list-style-type: none"><li>Stacie / Andrea</li></ul>	Feb 10, 2006	<ul style="list-style-type: none"><li>Presentation materials</li></ul>	
Review action plan	<ul style="list-style-type: none"><li>Laurie</li><li>Co-chairs</li><li>Action Teams</li></ul>	Feb 10–Feb 17, 2006	<ul style="list-style-type: none"><li>Laurie’s comments</li><li>Co-chairs’ comments</li><li>Action Teams’ comments</li></ul>	
Revise action plan based on comments	<ul style="list-style-type: none"><li>Stacie with Team</li></ul>	Feb 20–Feb 28, 2006	<ul style="list-style-type: none"><li>Revised action plan</li></ul>	
Submit action plan to Laurie	<ul style="list-style-type: none"><li>Stacie</li></ul>	Feb 28, 2006	<ul style="list-style-type: none"><li>Final action plan</li></ul>	
Revise action plan based on mtg minutes	<ul style="list-style-type: none"><li>Stacie</li></ul>	Ongoing	<ul style="list-style-type: none"><li>Updated action plan</li></ul>	

**GOAL 2      Ensure consistent messages on obesity and related risk behaviors within HEALTH, the Action Teams, and external partners**

<b>Objective 2.1</b> Create consistent overarching messages around obesity and key behavioral risk factors.			<b>Measures of Success</b> Messages created and approved	
<b>Strategy 2.1.a</b>				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Brainstorm on types and sources of messages	<ul style="list-style-type: none"><li>Team</li></ul>	Jan 13, 2006	<ul style="list-style-type: none"><li>List of topic areas for messages*</li><li>List of sources for messages (See resources and dependencies below)</li></ul>	
Review concept and timeline with co-chairs and gather feedback	<ul style="list-style-type: none"><li>Stacie / Andrea</li></ul>	Feb 10, 2006	<ul style="list-style-type: none"><li>Presentation materials</li><li>Revised action plan</li></ul>	<ul style="list-style-type: none"><li>To ask the co-chairs ...</li><li>Does the process make sense? (gathering, compiling, testing)</li><li>Does the timeline make sense? (3–4 months)</li><li>What other sources might we utilize for messages?</li><li>Can they gather and send us messages by the 17<sup>th</sup>?</li></ul>
Gather existing effective messages from the Action Teams and partner organizations	<ul style="list-style-type: none"><li>Stacie / Andrea Via Co-chairs</li></ul>	Feb 10–Feb 17, 2006	<ul style="list-style-type: none"><li>List of potential messages</li></ul>	

**GOAL 2 (con.)**

Conduct research on existing effective messages	<ul style="list-style-type: none"> <li>Team</li> </ul>	Feb 21–Mar 10, 2006	<ul style="list-style-type: none"> <li>List of potential messages</li> </ul>	<ul style="list-style-type: none"> <li>IHW (Gemma/Eliza/Erin, tiempo social, synergistic messages, central falls FG)</li> <li>Other HEALTH programs (WIC, Bright Futures, Arthritis, Diabetes, etc.)</li> <li>National resources (CDC, 5-a-day, NuPAC, VERB, Trailblazers, CDCynergy, smallstep.gov)</li> <li>Other funded states (via webboard, CDC website, state website, state plans' resource list, listserv, etc)</li> </ul>
Compile feedback from research, co-chairs / action teams input, and own ideas**	<ul style="list-style-type: none"> <li>Team</li> </ul>	Mar 14, 2006	<ul style="list-style-type: none"> <li>Database of messages</li> <li>Refined list of potential messages</li> </ul>	
Present refined list of potential messages to co-chairs	<ul style="list-style-type: none"> <li>Stacie / Andrea</li> </ul>	March co-chairs meeting	<ul style="list-style-type: none"> <li>Presentation materials</li> </ul>	
Review potential messages	<ul style="list-style-type: none"> <li>Co-chairs</li> <li>Action teams</li> </ul>	Mar 1–Mar 15, 2006	<ul style="list-style-type: none"> <li>Co-chairs' comments</li> <li>Action teams' comments</li> </ul>	
Revise potential messages	<ul style="list-style-type: none"> <li>Team</li> </ul>	Mar 16–Mar 31, 2006	<ul style="list-style-type: none"> <li>Revised list of messages</li> </ul>	
Present final messages to co-chairs for approval	<ul style="list-style-type: none"> <li>Stacie / Andrea</li> </ul>	April co-chairs meeting		
Test messages		April–May		

\* List of messages

- Taglines (Healthy Eating and Active Living, Move more, ...)
- Obesity
- Energy balance / Caloric balance
- Breastfeeding (initiation, six months, one year)
- Screen time (computers, TV, videogames)
- Physical activity (adults, kids)
- Nutrition (fat, fruits and vegetables, soda/sugar-sweetened beverages, portion size, fast food, etc.)

\*\* Cultural considerations (from the last meeting)

- Even if you look good, you could still have a weight problem
- Perception of overweight from cosmetic to health problem
- Big = healthy and strong → physically fit and eating right = healthy and strong



**GOAL 2**

(continued)

<b>Objective 2.2</b> Promote the use of these messages in HEALTH, action teams, and other external partners.		<b>Measures of Success</b> Examples where messages are used: websites, materials, etc.		
<b>Strategy 2.2.a</b> Create a fact sheet and implementation guide?				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
<b>Strategy 2.2.b</b> Strategy for HEALTH: sit on committees/Action Teams for projects? Director endorsement? Center for Public Health Communication? Department-wide newsletter? HEALTH website?				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
<b>Strategy 2.2.c</b> Strategy for Action Teams: assistance in tailoring and incorporating messages?				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
<b>Strategy 2.2.</b> Strategy for external partners: sit on their communications committees? Utilize IHW website? Utilize newsletter?				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>

## GOAL 2

(continued)

NOTE: The Obesity Communications Action Team will use the process established in Objective 1.1 to assess each Action Team's needs for consistent messages and determine objectives, strategies, and action steps to meet those needs.

### Ideas drawn from Action Team action plans

Jan 06	Develop consistent messages around healthy weight for families and service providers (Early Childhood)
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**GOAL 3      Create education materials, toolkits, and promotional materials to support the activities of the other Action Teams**

<b>Objective 3.1</b> Create promotional materials for the healthy snacks in schools legislation.			<b>Measures of Success</b>	
<b>Strategy 3.1.a</b> Conduct a post card campaign				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Create a team				
Conduct research				
Create a plan				
Develop materials				
Review materials				

### GOAL 3 (continued)

NOTE: The Obesity Communications Action Team will use the process established in Objective 1.1 to assess each Action Team's needs for education materials, toolkits, and promotional materials and determine objectives, strategies, and action steps to meet those needs.

#### Ideas drawn from Action Team action plans

Jun–Sep 2006	Create and revise toolkits based on successful pilot communities and programs (Communities)
Ongoing	Create and revise materials/toolkits to assist Safe Routes Teams in funded communities to develop and implement Safe Routes programs (Communities)
2008	Create materials / presentation for leaders and elected officials about walkability and best practices (Communities)
2007	Create promotional materials for existing parks, trails, and facilities (Communities)
Oct–Dec 2006	Create materials / presentation for After-School Program leaders about the benefits of physical activity and programs (Communities)
April 2006	Develop program brand and materials for Healthy Food Recognition program (Communities)
Jun–Aug 2006	Develop promotional materials for Healthy Food Recognition program (Communities)
Nov 2006	Develop Community gardening materials and toolkit (Communities)
????	Create program materials for a tax incentive program for markets in underserved neighborhoods to provide low-cost, high-quality fruits and vegetables (Communities)
????	Create materials for a campaign to limit unhealthy food advertisements around schools (Communities)
Jan 06	Create educational materials for families and service providers about healthy weight (Early Childhood)
????	Develop toolkits / training curriculum for early childhood professionals (Early Childhood)
Jan–April 2006	Assist in the development of toolkits for District Wellness Subcommittees (Schools)
Feb 2006	Assist in the development of workshop materials and presentations for District Wellness Subcommittees (Schools)
March 2006	Assist in the revision of physical education/activity and nutrition policy in schools (Schools)
Feb 2006	Write and submit short pieces engaging parents in physical activity and nutrition happenings in schools (Schools)
Feb–March 2006	Develop parent engagement tool for schools (Schools)

**GOAL 4      Create communication systems to support and promote Action Teams and their activities.**

<b>Objective 4.1</b> Create a network for Action Team members to share information and ideas		<b>Measures of Success</b>		
<b>Strategy 4.1.a</b> Create a database and listserv for Action Team members				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Obtain list from Laurie				
Input into IHW's database				
Figure out how to maintain and use the database and listserv				
Train the Action Teams				
<b>Strategy 4.1.b</b> Promote the use of the database and listserv				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>

**GOAL 4**

(continued)

Objective 4.2			Measures of Success	
Create systems for showcasing the work of the Action Teams				
Strategy 4.2.a				
Create a system for updating the Director (and/or Governor)				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Establish format for information gathering	<ul style="list-style-type: none"><li>Laurie Petrone</li></ul>	January 2006		
Gather information from co-chairs	<ul style="list-style-type: none"><li>Laurie Petrone</li></ul>	Monthly		
Send information to the Director	<ul style="list-style-type: none"><li>Laurie Petrone</li></ul>	Monthly		
Strategy 4.2.b				
Incorporate Action Teams and their work into the IHW website				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Gather information from Action Teams	<ul style="list-style-type: none"><li>Stacie</li></ul>	Bi-monthly		<ul style="list-style-type: none"><li>Utilize the system in strategy 4.1 (listserv) and 4.2a (Director/Governor's update)</li></ul>
Adapt information for the website	<ul style="list-style-type: none"><li>Stacie</li></ul>	Bi-monthly		
Post online	<ul style="list-style-type: none"><li>Stacie</li></ul>	Bi-monthly		
Strategy 4.2.c				
Incorporate Action Teams and their work into the obesity newsletter				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Gather information from Action Teams	<ul style="list-style-type: none"><li>Stacie</li></ul>	Bi-monthly		<ul style="list-style-type: none"><li>Utilize the system in strategy 4.2b (website updates)</li></ul>
Adapt information for the newsletter	<ul style="list-style-type: none"><li>Stacie</li></ul>	Bi-monthly		
Incorporate into newsletter	<ul style="list-style-type: none"><li>Stacie</li></ul>	Bi-monthly		

## GOAL 4

(continued)

NOTE: The Obesity Communications Action Team will use the process established in Objective 1.1 to assess each Action Team's needs for communications systems and determine additional objectives, strategies, and action steps to meet those needs.

### Ideas drawn from Action Team action plans

Jun–Sep 2006	Create a network to enable pilot communities to share successes and challenges (Communities)
2007	Create and publish a directory of physical activity resources (Communities)
Jun–Aug 2006	Publicize Healthy Food Recognition Program via websites and weblinking (Communities)
Sep 2006	Publish a list of Health Food restaurants on the web (Communities)
????	Publish lists of public parks, opportunities for physical activity, Farmers' Markets, etc. (Early childhood)
Jan 2006	Develop and maintain email communications with District Wellness Subcommittee leadership (Schools)
Jan 2006–Ongoing	Create a system for sending regular updates to District Wellness Subcommittee leadership (Schools)

**GOAL 5**      **Improve the media coverage of the obesity issue, related risk factors, and obesity prevention programs, policies and environmental changes.**

<b>Objective 5.1</b> Establish media relations and partnerships			<b>Measures of Success</b>	
<b>Strategy 5.1.a</b> Create a guide for the media on obesity and related risk factors				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Assess current coverage of obesity and related risk factors to identify opportunities for improvement			<ul style="list-style-type: none"><li>Database of recent stories and messages</li></ul>	
<b>Strategy 5.1.b</b> Meet with media partners				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Assess who would be good partners and contacts				<ul style="list-style-type: none"><li>Maria Wah-Fitta</li><li>Carol Hall-Walker</li></ul>
Attend regional meetings				
Meet with Barbara Morse and Felice Fryer				



**GOAL 5**

(continued)

<b>Objective 5.2</b> Promote the healthy snacks in schools legislation			<b>Measures of Success</b>	
<b>Strategy 5.2.a</b>				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>

**GOAL 5**

(continued)

Objective 5.3 Conduct a statewide media campaign			Measures of Success	
Strategy 5.3.a				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Assess funding options				
Research current effective media campaigns at the state and national level			<ul style="list-style-type: none"><li>Database of media campaigns and messages</li></ul>	<ul style="list-style-type: none"><li>Utilize the web board &amp; listserv</li><li>Lighten up! Iowa; Shape up! NC; Verb; yellow ball; Mass Moves; CO on the Move; America on the Move; Shape up Across CO; Active4 Life; Take 10; 5-2-1 Go; Eat Smart, Move more; Eat right, be active; eat healthy/right/better, move more; , balancing healthy eating and active living, a healthy active RI, RI steps up, Governor’s Get Fit, Rhode Island!, Slim for Life, LIFESTEPS, Balance, scale, Shape Up Somerville: Eat Smart Play Hard, CATCH, include research projects?</li></ul>
Explore the option of coordinating media buys with other states				
Create campaign				<ul style="list-style-type: none"><li>CDCynergy</li></ul>
Implement campaign				
Evaluate campaign				

## GOAL 5

(continued)

NOTE: The Obesity Communications Action Team will use the process established in Objective 1.1 to assess each Action Team's needs for media activities and determine additional objectives, strategies, and action steps to meet those needs.

### Ideas drawn from Action Team action plans

Ongoing	Recognize successful pilot communities and programs through events and unpaid media (Communities)
Ongoing	Recognize Safe Routes programs through events and unpaid media (Communities)
Ongoing	Recognize communities that revised community plans through events and unpaid media (Communities)
Ongoing	Recognize communities that are successful in revitalizing parks, trails, and facilities through events and unpaid media (Communities)
Jun–Aug 2006	Partner with the media to promote the Healthy Foods Recognition program (Communities)
Oct 2006–Ongoing	Communicate successful methods and programs (community assessment and planning) to additional communities (Communities)
Ongoing	Communicate successful Safe Routes methods and programs to additional communities (Communities)
Ongoing	Communicate successful communities that revised community plans to additional communities (Communities)
Ongoing	Communicate successful methods on revitalizing parks, trails, and facilities) to additional communities (Communities)
????	Run a media advocacy campaign to support a tax incentive program for markets in underserved neighborhoods to provide low-cost, high-quality fruits and vegetables (Communities)
????	Run a media advocacy campaign to support legislation to limit unhealthy food advertisements around schools (Communities)
Jan 2006–????	Run a media advocacy campaign for farm to school incentives (Schools)
May 2006	Run a media advocacy campaign for changing PE infrastructure in schools (Schools)
Jan 2006–Ongoing	Communicate with parents through local paper and media (Schools)
Jan 2006–Ongoing	Invite local papers to check out PA/nutrition happenings in schools (Schools)

## Appendix D5. Data and Evaluation Action Plan

**Co Chairpersons:** Patricia Markham Risica, DrPH, Sam Viner-Brown, SM  
**Committee:** Jana Hesser, Hannah Kim , Elissa Jelalian, Jan Mermin, Deborah Pearlman, Colleen Caron

**Vision:** Information system that will inform the State of Rhode Island and community partners of the prevalence of overweight and obesity and key risk factors.

**Lead:** Patricia Markham Risica, DrPH, Sam Viner-Brown, SM

**Mission:** To implement a high quality, comprehensive data collection and dissemination system to establish the prevalence and trends in obesity and key risk factors.

**Goal:** By 2010 the State of Rhode Island will have a comprehensive surveillance system implemented that will

- encompass children of all age groups
- assess weight by measurement (not self-report)
- be reportable for each city/town in Rhode Island
- be reportable for each major ethnic/racial group and socioeconomic position.

Measurements will include height, weight, nutrition, breastfeeding, physical activity, screen time.

**GOAL 1: The characteristics of the existing and optimal data systems will be determined.**

<b>Objective 1</b> A needs assessment will be conducted to document the current state of data for Rhode Island.			<b>Measure of Success</b> A document will be created and disseminated describing the current system.	
<b>Strategy</b> The Data and Evaluation Action Team will combine a set of existing resources in surveillance of healthy weights and key risk factors.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Current data sources will be identified.	Deborah Pearlman, Sam-Viner Brown, Hannah Kim	11/01/05 done	Document is delivered to the Data and Evaluation Action Team.	Availability of data sources.
Characteristics of the optimal data system will be identified.	Patti Risica, Sam Viner-Brown, Jana Hesser	11/14/05 start 12/05/05 done	Document describing the optimal data system is completed and delivered to Director of HEALTH.	Discussion with national and local experts and review of the literature.
The limitations to the data sources	Patti Risica, Sam Viner-Brown, Jana Hesser	11/14/05 start 12/05/05 done	Document describing the limitations to the data sources is completed and delivered to Director of HEALTH.	

<b>Objective 2</b> The optimal data system for the state of data for Rhode Island will be determined.		<b>Measure of Success</b> A document will be created and disseminated describing the optimal system.		
<b>Strategy</b> The Data and Evaluation Action Team will examine best practices in surveillance of healthy weights and key risk factors, along with the geographic, social and demographic make up of Rhode Island to determine the optimal system.				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Data points to be gathered will be determined to appropriately characterize the following characteristics of children: <ul style="list-style-type: none"><li>weight status</li><li>nutrition</li><li>breastfeeding</li><li>physical activity</li><li>screen time</li></ul>				
Target age groups are selected to appropriately characterize children of all ages.	Data and Evaluation Action Team			
Target socioeconomic, ethnic and racial sample strategies are identified to appropriately characterize children of all major ethnic/racial subpopulations and socioeconomic positions.	Data and Evaluation Action Team			

Target geographic sampling strategies are identified to appropriately characterize each city/town in Rhode Island.	Data and Evaluation Action Team			
The optimal channel for data collection will be identified for each age group.	Data and Evaluation Action Team			
The limitations of the proposed	Data and Evaluation Action Team			
Strategies to optimize the quality of the data collection systems will be identified.	Data and Evaluation Action Team			

**GOAL 2: A plan will be established for creating the optimal surveillance system in Rhode Island.**

<b>Objective 1</b> Development of priorities for an optimal surveillance system for healthy weights and key risk factors for Rhode Island.			<b>Measure of Success</b> A document will be created and disseminated describing the recommended priorities among the full scope of the optimal data system.	
<b>Strategy</b> The Data and Evaluation Action Team will consider existing data sources and needs.				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Current action team objectives and evaluation needs will be identified.	Sam Viner-Brown, Patti Risica			
1) Schools	Jan Mermin, Elissa Jelalian	January 1, 2006 or after Action Team objectives have been determined.		
2) Early Childhood	Patti Risica, Laurie Petrone	January 1, 2006 or after Action Team objectives have been determined.		
3) Community	Eliza Lawson, Sam-Viner Brown	January 1, 2006 or after Action Team objectives have been determined.		
Identification of potential existing systems for meeting data needs	Data and Evaluation Action Team.			
Identification of potential new systems for meeting data needs	Data and Evaluation Action Team.			



<b>Objective 2</b> Development of a plan for implementation of the surveillance system for healthy weights and key risk factors for Rhode Island.		<b>Measure of Success</b> A document will be created and disseminated describing the recommended plan for implementing the optimal data system.		
<b>Strategy</b> The Data and Evaluation Action Team will consider existing data needs based on the described optimal data system, and will identify specific steps toward achieving that system by first meeting the data needs of other action teams, and by considering and utilizing existing systems when possible.				
Action Steps	Assigned to	Time Frame	Deliverable/Milestone	Dependencies/Resources
Identification of potential existing systems for meeting data needs	Data and Evaluation Action Team.			
Identification of potential new systems for meeting data needs	Data and Evaluation Action Team.			
Methods, strategies and implementation plans for creating new data collection systems will be identified.	Data and Evaluation Action Team.			
Methods, strategies and implementation plans for analyzing and disseminating new data collection systems will be identified.				
Existing resources to create new data collection systems will be identified.	Data and Evaluation Action Team.			
Potential external funding sources for creation of new data collection systems will be identified.	Data and Evaluation Action Team.			

<b>Objective 3</b> Disseminate and implement the plan for a comprehensive data system.		<b>Measure of Success</b> Data collection systems will be implemented such that .		
<b>Strategy</b> The Data and Evaluation Action Team will consider existing data needs based on the described optimal data system, and will identify specific steps toward achieving that system by first meeting the data needs of other action teams, and by considering and utilizing existing systems when possible.				
<b>Action Steps</b>	<b>Assigned to</b>	<b>Time Frame</b>	<b>Deliverable/Milestone</b>	<b>Dependencies/Resources</b>
Secure necessary resources for implementing data collection, analysis and dissemination plans.				
Develop an action plan for completing the implementation plan.				
Implement the creation of one or all components of the optimal surveillance system for childhood healthy weight.				

## Appendix E. Body Mass Index Height and Weight Chart

The table below has already done the math and metric conversions. To use the table, find the appropriate height in the left-hand column. Move across the row to the given weight. The number at the top of the column is the BMI for that height and weight.

BMI (kg/m <sup>2</sup> )	19	20	21	22	23	24	25	26	27	28	29	30	35	40
Height (in.)	Weight (lb.)													
58	91	96	100	105	110	115	119	124	129	134	138	143	167	191
59	94	99	104	109	114	119	124	128	133	138	143	148	173	198
60	97	102	107	112	118	123	128	133	138	143	148	153	179	204
61	100	106	111	116	122	127	132	137	143	148	153	158	185	211
62	104	109	115	120	126	131	136	142	147	153	158	164	191	218
63	107	113	118	124	130	135	141	146	152	158	163	169	197	225
64	110	116	122	128	134	140	145	151	157	163	169	174	204	232
65	114	120	126	132	138	144	150	156	162	168	174	180	210	240
66	118	124	130	136	142	148	155	161	167	173	179	186	216	247
67	121	127	134	140	146	153	159	166	172	178	185	191	223	255
68	125	131	138	144	151	158	164	171	177	184	190	197	230	262
69	128	135	142	149	155	162	169	176	182	189	196	203	236	270
70	132	139	146	153	160	167	174	181	188	195	202	207	243	278
71	136	143	150	157	165	172	179	186	193	200	208	215	250	286
72	140	147	154	162	169	177	184	191	199	206	213	221	258	294
73	144	151	159	166	174	182	189	197	204	212	219	227	265	302
74	148	155	163	171	179	186	194	202	210	218	225	233	272	311
75	152	160	168	176	184	192	200	208	216	224	232	240	279	319
76	156	164	172	180	189	197	205	213	221	230	238	246	287	328

Body weight in pounds according to height and body mass index.

## Appendix F. National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Healthcare

### **Standard 1–Culturally Competent Healthcare (guideline)**

Healthcare organizations should ensure that patients/consumers receive from all staff members effective, understandable, and respectful care that is provided in a manner compatible with their cultural health beliefs and practices and preferred language

### **Standard 2–Staff diversity (guideline)**

Healthcare organizations should implement strategies to recruit, retain, and promote at all levels of the organization a diverse staff and leadership that are representatives of the demographic characteristics of the service area

### **Standard 3–Staff education and training (guideline)**

Healthcare organizations should ensure that staff at all levels and across all disciplines receive ongoing education and training in culturally and linguistically appropriate service delivery.

### **Standard 4–Qualified language assistance services (mandate)**

Healthcare organizations must offer and provide language assistance services, including bilingual staff and interpreter services, at no cost to each patient/consumer with limited English proficiency at all points of contact, in a timely manner during all hours of operation.

### **Standard 5–Notices to patients/consumers of the right to language assistance services (mandate)**

Healthcare organizations must provide to patients/consumers in their preferred language both verbal offers and written notices informing them of their right to receive language assistance services.

### **Standard 6–Qualifications for bilingual and interpreter services (mandate)**

Healthcare organizations must assure the competence of language assistance provided to limited English proficient patients/consumers by interpreters and bilingual staff. Family and friends should not be used to provide interpretation services (except on request by the patient/consumer).

### **Standard 7–Translated materials (mandate)**

Healthcare organizations must make available easily understood patient-related materials and post signage in the languages of the commonly encountered groups and/or groups represented in the service area.

### **Standard 8–Organizational framework for cultural competence (guideline)**

Healthcare organizations should develop, implement, and promote a written strategic plan that outlines clear goals, policies, operational plans, and management accountability/oversight mechanisms to provide culturally and linguistically appropriate services.

**Standard 9—Organizational self-assessment (guideline and recommendation)**

Healthcare organizations should conduct initial and ongoing organizational self-assessments of CLAS-related activities and are encouraged to integrate cultural and linguistic competence related measures into their internal audits, performance improvement programs, patient satisfaction assessments and outcomes-based evaluations.

**Standard 10—Collection of data on individual patients/consumers (guideline)**

Healthcare organizations should ensure that data on the individual patient's/consumer's race, ethnicity, and spoken and written language are collected in health records, integrated into the organization's management information systems, and periodically updated.

**Standard 11—Collection of data on communities (guideline)**

Healthcare organizations should maintain a current demographic, cultural, and epidemiological profile of the community as well as a needs assessment to accurately plan for and implement services that respond to the cultural and linguistic characteristics of the service area.

**Standard 12—Community partnerships for CLAS (guideline)**

Healthcare organizations should develop participatory, collaborative partnerships with communities and utilize a variety of formal and informal mechanisms to facilitate community and patient/consumer involvement in designing and implementing CLAS-related activities.

**Standard 13—Complaint and grievance resolution (guideline)**

Healthcare organizations should ensure that conflict and grievance resolution processes are culturally and linguistically sensitive and capable of identifying, preventing, and resolving cross-cultural conflicts or complaints by patients/consumers.

**Standard 14—Information for the public (recommendation)**

Healthcare organizations are encouraged to regularly make available to the public information about their progress and successful innovations in implementing the CLAS standards and to provide public notice in their communities about the availability of this information.

## Appendix G. Previous and Current Obesity Prevention Initiatives

### 2000-2003 Environmental and Policy Intervention in Rhode Island Elementary Schools

**Citation:** Pearlman, D.N., Dowling, E., Bayuk, C., Cullinen, K.M., Thacher, A.K., “From Concept to Practice: Using the School Health Index to Create Healthy School Environments in Rhode Island Elementary Schools.” *Preventing Chronic Disease: Public Health Research, Practice, and Policy*, 2:Special Issue (05).

#### Introduction

The prevalence of childhood obesity is increasing, and schools are ideal places to support healthy eating and physical activity. In 2000, the Centers for Disease Control and Prevention (CDC) developed the School Health Index, a self-assessment and planning tool that helps schools evaluate and improve physical activity and nutrition programs and policies. Although many state education agencies, health departments, and individual schools have used the School Health Index, few systematic evaluations of the tool have been performed. We examined the physical activity and nutrition environments in Rhode Island’s public elementary schools with high and low minority student enrollments and evaluated a school-based environmental and policy intervention that included implementation of the School Health Index.

#### Methods

As part of a CDC Division of Nutrition and Physical Activity cooperative agreement awarded to the Rhode Island Department of Health, we conducted a needs assessment of 102 elementary schools and implemented an intervention in four inner-city elementary schools. In phase 1, we analyzed the Rhode Island Needs Assessment Tool (RINAT), a telephone survey of principals in approximately 50% of all Rhode Island public elementary schools in the state during the 2001–2002 school year ( $n = 102$ ). Comparisons of the nutrition and physical activity environments of schools with low and high minority enrollment were calculated by cross-tabulation with the chi-square test. In phase 2, we used process and outcome evaluation data to assess the use of the School Health Index in creating healthier environments in schools. Our intervention — *Eat Healthy and Get Active!* — involved implementing three of the eight School Health Index modules in four Rhode Island elementary schools.

#### Results

Survey data revealed that schools with high minority enrollment (student enrollment of >10% lack, >25% Hispanic, or both) offered few programs supporting healthy eating and physical activity ( $P < .05$ ). Schools with high and low minority enrollment both offered non-nutritious foods and beverages. Process evaluation data revealed that 1) principals play a pivotal role on School Health Index teams, 2) school-wide validation of a team’s small successes is crucial for sustaining a commitment to healthy lifestyle policies and programs, and 3) external facilitators are essential for implementation success. Outcome data showed that all schools developed at least one policy or environmental strategy to create a healthy school environment. Only two schools implemented immediate changes.

## **Conclusion**

Needs assessment, external facilitation, and evaluation are the foundation for sustainable school-based policies. Although the School Health Index is universally perceived as a user-friendly assessment tool, implementation is likely to be less successful in schools with low staff morale, budgetary constraints, and inconsistent administrator support.

### **2002 World Health Organization Award**

In 2002, the RI Obesity Prevention and Control Program (currently the IHW) received the World Health Organization's 2002 World Health Day Award in recognition of the program's national leadership in evaluating and implementing statewide nutrition and physical activity programs.

### **2003-2004 Initiative for a Healthy Weight Mini-Grants**

The Initiative for a Healthy Weight awarded five mini-grants in July 2003 to launch community-based obesity prevention initiatives. The grants were awarded to the Rhode Island Alliance of Boys & Girls Clubs; KIDS FIRST, Inc.; South Providence Neighborhood Ministries; Thundermist Health Center; the Worksite Wellness Council of Rhode Island; and Hasbro Children's Hospital, Pediatric Clinic. A summary of the key findings and lessons learned from these interventions are listed below.

#### **Rhode Island Alliance of Boys and Girls Clubs**

With the funds provided through this grant, the BodyWorks program was implemented at 17 Boys & Girls Club units across Rhode Island. These units were located in Cumberland, East Providence, Newport, Pawtucket, Providence, North Providence, and Warwick.

Developed by the Boys & Girls Clubs of America (B&GCA), BodyWorks is a comprehensive wellness program that promotes health and fitness among youth ages 6 - 13. It consists of twenty-four weeks of activities designed with three principles in mind: encouraging kids to exercise more, to eat better, and to take responsibility for their health and well-being. The program is comprised of a range of activities, including both physical components and educational sessions. The program also reaches out to the families of those participating; parents attend an information night, are encouraged to come to the health fair, receive a regular program newsletter, and are invited to volunteer at program events. This involvement is cultivated in order to encourage household-level change, thus ensuring that the lessons learned in BodyWorks can also be incorporated at home. Overall, BodyWorks instill participants with a positive attitude, a more active lifestyle, and healthy eating habits.

BodyWorks aimed to provide approximately 675 participants with an overall increase in skill levels and physical fitness. Anticipated short term outcomes included:

- Increased knowledge about healthy eating habits.
- Increased motivation to participate in physical activities.
- Increased knowledge on available health care resources.

The anticipated long-term outcomes of this program are continued regular participation in physical activities, a reduction in youth obesity among program participants, and increased health through better nutrition

In order to evaluate the effectiveness of this intervention, three of these seventeen sites were chosen to be the focus of process and outcome evaluations. These sites were in East

Providence (the Williams Avenue Unit and the Watters School Unit) and in North Providence. The BodyWorks program was reviewed with both a process evaluation and an outcome evaluation.

## Results

The intervention was effective in changing behaviors, intentions and knowledge.

- The percentage of children who consumed no servings of fruits/vegetables the day before taking the test decreased from 27.4% (26.03% to 28.77%) to 19.7% (18.72 to 20.69).
- The percentage of those consuming at least one serving increased from 41.9% (39.81% to 44%) to 51.6% (49.02% to 54.18%).
- The percentage of correct responses on which was healthier, milk or soda, increased from 80.3% (76.29 to 84.32) to 92.8% (88.16% to 97.44%).
- The percentage of correct responses on which was healthier, cookies or fruit, increased from 82.6% (78.47% to 86.73%) to 93.6% (88.92% to 98.28%).
- The percentage of correct responses on which was healthier, French fries or baked potatoes, increased from 67.5% (64.13% to 70.88%) to 79.2% (75.24% to 83.16%).
- The percentage of correct responses on which was healthier, chips or carrots, increased from 76.9% (73.06% to 80.75%) to 89.6% (85.12% to 94.08%).
- The percentage of respondents who indicated that they never engaged in activities that made them sweat or breathe hard decreased from 14.6% (13.87% to 15.33%) to 4.9% (4.66% to 5.15%).
- The percentage of those who indicated that they did so a lot increased from 49.2% (46.74% to 51.66%) to 59.8% (56.81% to 62.79%).
- The percentage of respondents who indicated that they were unhappy with their weights decreased from 32.1% (30.5% to 33.71%) to 22.8% (21.66% to 23.94%).
- The percentage that indicated that they were sometimes happy with their weight decreased from 32.8% (31.16% to 34.44%) to 24.4% (23.18% to 25.62%).
- The percentage that was often happy with their weight increased from 35.1% (33.35% to 36.86%) to 52.8% (50.16% to 55.44%).
- The percentage of respondents who indicated that they played video games a lot decreased from 29.1% (27.65% to 30.56%) to 19.8% (18.81% to 20.79%).
- The percentage that indicated that they never played videogames increased from 27.6% (26.22% to 28.98%) to 39.7% (37.71% to 41.69%).
- The percentage of respondents who indicated that they used a computer a lot decreased from 23.7% (22.52% to 24.89%) to 19.7% (18.72% to 20.69%).
- The percentage that indicated that they used a computer sometimes decreased from 46.7% (44.37% to 49.04%) to 39.9% (37.91% to 41.9%).
- The percentage that indicated that they never used computers increased from 29.6% (28.12% to 31.08%) to 41% (38.95% to 43.05%).
- The percentage that indicated that they intended to play at the playground in the next month increased from 34.3% (32.59% to 36.02%) to 51.2% (48.64% to 53.76%).
- The percentage that indicated that they would ride a bike in the next month increased from 59.9% (56.91% to 62.9%) to 74.4% (70.68% to 78.12%).



## Kids First, Inc.

*Eat Healthy and Get Active* (EHGA) was a two-year pilot intervention program that utilized an intense facilitation model to help schools develop guidelines, policies, and environmental supports that promote lifelong physical activity and healthy eating among children. Project implementation began in September 2002 and intervention expanded in September 2003. All participating schools met the requirements of having a student population that was at least  $\geq$  25% Hispanic origin student enrollment, and  $\geq$ 50% of the student population eligible for free or reduced price lunch.

### Results

- Met goal of recruiting seven schools to participate in project, two middle schools, and five elementary schools.
- Formed intervention teams within each school.
- Met with teams a minimum of 10 times during the school year.
- Each school team was made up of key players from within their school or district.
- Completed SHI training at schools.
- Completed Modules 1,3, and 4 of the SHI at schools.
- Listed *Strengths* and *Weaknesses* for each school based on the Module results.
- Created a plan of action for schools.
- Each school intervention team completed training on the obesity epidemic and the importance of policy.
- Influenced positive changes within the school's environments through education and policy.
- Formed relationships within the districts and schools.
- Aided Food Service Managers and other food service staff in making the connection to the classroom.
- Raised awareness through education on nutritional needs and the importance of physical activity through hands-on education.
- Added a behavioral component to the project by utilizing community agencies and persons to help support nutrition and physical activity education in the schools and districts.
- Developed nutrition, food safety, and physical activity guidelines and policies.
- Implemented hand sanitizer in two of the seven schools for all students to use before eating breakfast and lunch.
- Mobilized intervention teams to think about making changes and helped them to continue to meet after the project ended.
- Lillian Feinstein at Sackett Street worked with Sodexho, the food service contractor, to design a low sugar breakfast menu. This was the start of great things in Providence. A group of Sodexho food service workers volunteered their time every other Tuesday of the month to meet and discuss the quality of food served to the children in Providence. This group was led by Dorothy Hebert of Kids First and supported by Sodexho and the Providence School District. The group of woman came up with great solutions such as a list of cereals that were lower in sugar than those currently being served.

### Audiences Reached

- School Principals
- Superintendents
- Business Managers
- Assistant Superintendents
- Family Consumer Science Teachers

### **South Providence Neighborhood Ministries**

South Providence Neighborhood Ministries (SPNM) and the Broad Street Path to Health Coalition worked to provide increased opportunities for safe exercise and access to healthy foods. Through work in the coalition, they developed and promoted access to places for physical activity combined with informational outreach activities.

SPNM's project built on its program started in 2001, the Broad Street Path to Health. Half mile markers in four languages, English, Spanish, Khmer and Haitian Creole, representative of the racial/ethnic makeup of the neighborhood, are posted for two and a half miles of a main thoroughfare to encourage walkers to track the distances they walk. Additionally, SPNM is the one Rhode Island Path to Health program with programming designed to engage neighbors in physical activity by creating exercise support groups.

Improved nutrition is part of SPNM's programming with classes, courses and demonstrations offered to adults and children involved with the agency programs.

The Obesity Prevention Project allowed SPNM to gather information about other neighborhood physical activity and nutrition education resources for inclusion in the new Southside Physical Activity Directory.

### **Thundermist Health Center**

Be F.I.T.- Initiatives for a Healthy Weight (Be F.I.T. -IHW) is a project of Thundermist Health Center. Be F.I.T.-IHW is a component of Be F.I.T. (Fitness Initiative of Thundermist) detailed further below.

Be F.I.T.-IHW was designed to achieve four objectives of the Rhode Island Statewide Obesity Prevention Plan. These objectives are detailed in the Methods section of this report. Be F.I.T. IHW's initial target population was students and parents served by five Woonsocket Schools; school personnel; food service vendors, district-wide administrators and community based organizations (CBOs) that serve these schools.

The schools identified as target schools, the district high school, middle school and three neighborhood elementary schools, were chosen because Thundermist operates three school based health centers that serve these schools and had strong pre-existing relationships with key stake holders.

During implementation, the target population was expanded to include all students and families served by the Woonsocket Education Department because Thundermist capitalized on outreach opportunities through its main community health center as well as participated in district-wide advocacy opportunities.

## Results

- Developed and engaged an active community advisory committee.
- Connected Kids First with the Woonsocket Education Department to schedule a Lunch and Learn Session.
- Educated caregivers and educators about ways to role model healthy eating and physical activity and to encourage active role modeling through volunteer participation and advocacy.
- Conducted successful outreach activities.

## **Worksite Wellness Council of Rhode Island (WWCRI)**

The Worksite Wellness Council of Rhode Island (WWCRI), an affiliate of the Wellness Councils of America, was established to facilitate health initiatives in worksites statewide that meet or exceed national standards.

From May 2003 to April 2004, the WWCRI conducted a pilot study by offering a multi-faceted intervention to fourteen companies to bring them from awareness to action in helping their employees choose healthier lifestyles. The project objective was to increase the number of (WWCRI) member companies that adopted or intend to adopt healthy eating, weight management and physical activity programs and to determine whether the intensity of the intervention affected the results. The intervention involved two methods of delivering information to participating employers – Intensive and Modified. Participating employers were assigned to Group 1 for the Intensive Intervention or Group 2 for the Modified Intervention.

The Intensive Intervention included attendance at a half-day Intensive Informational Conference, which explored ways to implement healthy eating, weight management and physical activity programs at the worksite. Participating employers also received follow-up contact by the Project Consultant. The Modified Intervention included a 1:1 in person meeting with the Project Consultant as well as follow-up contact.

This project allowed the WWCRI to expand its' delivery of information to member organizations on healthy eating, physical activity and weight management programs and to further the mission of the Council by improving the health and safety of working Rhode Islanders.

## Results

As was stated earlier, the WWCRI conducted this pilot study with fourteen companies by offering a multi-faceted intervention to bring these companies from awareness to action in helping their employees choose healthier lifestyles. The project objective was to increase the number of (WWCRI) member companies that adopted or intend to adopt healthy eating, weight management and physical activity programs and to determine whether the intensity of the intervention affected the results. It is clear in the tables presented at the end of this section that the intensity of the intervention did affect the results.

For Group 1, all eight companies participating in the Intensive Intervention had some activity in at least one of the program areas of healthy eating, physical activity and weight management. These companies attended the half-day Intensive Informational Conference, which provided information on low cost, easy to administer programs and useful tools to implement programs. For the most part, the employer representatives that participated in the Intensive Intervention displayed a greater level of enthusiasm for the project as they had the benefit of attending the Intensive Informational Conference.

Of particular interest is that four of the eight companies, representing 551 employees, adopted physical activity programs, which included 10 K A DAY and tailored walking programs. One of these four companies had no intention of implementing a physical activity program and credits their participation in the Intensive Intervention with the implementation of a 10 K A DAY program at their worksite. Two of the eight companies intend to implement healthy eating programs and two are considering weight management programs. In addition, five of the eight companies expanded healthy eating, physical activity and/or weight management program offerings.

As shown in the tables for Group 2, six companies participated in the Modified Intervention. One of these six companies adopted programs in healthy eating, physical activity and weight management which was primarily due to this company having a highly motivated wellness champion who made use of the information provided at the 1:1 in person meeting with the Project Consultant. In addition, one of the companies is considering a weight management program. More importantly, four of the six companies had no change in program offerings, which suggests the intensity of the intervention does affect the success of the intervention.

### **Hasbro Children's Hospital, Pediatric Clinic**

Grantees developed, taught, and evaluated a curriculum for pediatric and family medicine practitioners on anticipatory guidance for the prevention of pediatric overweight and obesity in a diverse pediatric population. They also developed an intervention intended to enhance physician awareness of childhood obesity, develop their skills in anticipatory guidance counseling, and change participant's attitudes and practices to favor prevention.

This curriculum incorporated different teaching formats in order to reach a large number of physician participants and address various adult learning styles. The completed curriculum/intervention included: a) noon conferences, b) pre-clinic teaching sessions, c) physician reference tool, d) parent handouts (handouts were individualized for each well child visit up until age 7 yrs.), and e) pre- and post-intervention surveys.

Physicians and medical students exposed to the study demonstrated increased awareness of the problem of childhood obesity and the need for early counseling of families to encourage parenting skills and family lifestyles that promote healthy weight in infants and children. They also demonstrated increased confidence in their ability to effectively counsel families on these issues.

Materials developed for this study continue to be used in the clinics and in physician education.

## 2006-2007 Initiative for a Healthy Weight Mini-Grants

With funding from the Division of Family Health and the Division of Community Health and Equity, IWH has funded each organization for \$10,000 each (\$60,000 total) for the time period beginning August 14, 2006, through April 30, 2007 for the:

- Establishment of a community coalition to promote healthy eating and active living and the completion of a community needs assessment (Task 1\*); or
- Expansion of an existing community needs assessment and the development of a community intervention plan to promote healthy eating and active living (Task 2\*\*).

Funding was based upon the need of the proposed target population, the proposed project action plan, administration and evaluation, and the proposed budget. The following is a description of the six community-based organizations awarded 2006–2007 IHW mini-grants:

### **Blackstone Health, Inc.\***

Blackstone Health, Inc. is a community based non-profit health and social services agency. It is part of the Southeastern Healthcare System, the parent corporation of Memorial Hospital of Rhode Island. The mission is to be a community based organization delivering an appropriate and responsive mix of healthcare and related services as a part of the Southeastern Healthcare System.

### **East Bay Community Action Program\*\***

(Newport Chamber of Commerce as fiscal agent)

East Bay Community Action Program provides a wide array of health and human services to the residents of Rhode Island's east bay including the municipalities of East Providence, Barrington, Warren, Bristol, Little Compton, Tiverton, Portsmouth, Middletown, Newport and Jamestown. The services provided by EBCAP include: Head Start Services and Early Head Start in the lower east bay; family health and dental services; family development case management services including social service information and referral and basic human needs; youth programs; the East Bay Coalition for the Homeless; Housing and Energy Services; WIC; and senior services including case management, senior employment, the Retired Senior Volunteer Program (RSVP), Foster Grandparents and the Ocean State Senior Dining Program (meals in a social setting).

### **Providence YMCA\***

The YMCA of Greater Providence is a membership association of men, women and children established to meet the health and social service needs of families in Rhode Island and Southeastern Massachusetts. Ten branches serving 22 communities provide resources for people of all faiths, races, abilities, ages and incomes. Diverse programs focus on youth, fitness and recreation and serve every population.

### **RI Hospital, Injury Prevention Center\*\***

The Injury Prevention Center was created in 1998 by emergency department physicians. Injuries are the leading cause of death among RI children and young adults. The goal of the Injury Prevention Center is to reduce injuries in Rhode Island through community outreach, research and education.

**South Providence Neighborhood Ministries\***

South Providence Neighborhood Ministries provides a comprehensive health promotion program that includes individual and community health risk assessments, community outreach, health education, consumer empowerment, a health information center, and screening and referral services to help meet the neighborhood's diverse needs.

**URI Food, Hunger & Nutrition Partnership\***

The Food, Hunger & Nutrition Partnership explores the phenomenon, causes and consequences of food insecurity, malnutrition and hunger by integrating academic training, research, service learning, and outreach into RI communities where food insecurity is most prevalent. The partnership provides the needed framework to unify and focus the expertise of faculty, students, and community-based partners who historically worked separately to address poverty, policy, nutrition and food insecurity.

## Appendix H. How to Join Rhode Island's Healthy Eating and Active Living Collaborative

**Complete this brief survey and return it to us!**

**This survey will help us learn more about you and how we can work together in the future.**

Name \_\_\_\_\_  
Organization \_\_\_\_\_  
Phone \_\_\_\_\_  
Email \_\_\_\_\_

### I am interested in ... (Please check all that apply)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Obesity                       | <input type="checkbox"/> Healthcare & Health Plans             | <input type="checkbox"/> Preschoolers               |
| <input type="checkbox"/> Nutrition                     | <input type="checkbox"/> Early Childhood Settings              | <input type="checkbox"/> Children                   |
| <input type="checkbox"/> Physical Activity             | <input type="checkbox"/> Schools & After-School Programs       | <input type="checkbox"/> Adolescents                |
| <input type="checkbox"/> Breastfeeding                 | <input type="checkbox"/> Worksites                             | <input type="checkbox"/> Adults                     |
| <input type="checkbox"/> Screen Time                   | <input type="checkbox"/> Community-Based Programs & Resources  | <input type="checkbox"/> Seniors                    |
| <input type="checkbox"/> Policy / Legislation          | <input type="checkbox"/> Community Access to Physical Activity | <input type="checkbox"/> Racial & Ethnic Minorities |
| <input type="checkbox"/> Communications / Media        | <input type="checkbox"/> Community Access to Healthy Food      | <input type="checkbox"/> Low-income Populations     |
| <input type="checkbox"/> Data, Surveillance & Research |  | <input type="checkbox"/> People with Disabilities   |

### I would like to ... (Please check all that apply)

- ☐ Be part of an obesity listserv  
☐ Receive a monthly e-newsletter  
☐ Sign up for a workgroup in an area of interest  
☐ Come to future collaborative meetings  
☐ Not be contacted further on this issue  
☐ Recommend someone else who may be willing to become involved

Name \_\_\_\_\_  
Organization \_\_\_\_\_  
Phone \_\_\_\_\_  
Email \_\_\_\_\_

**If you are interested in coming to future collaborative meetings and workgroup sessions, please place an "X" in the time slots when you are normally NOT available.**

Day	Early Morning (8am–10am)	Late Morning (10am–12pm)	Early Afternoon (12pm–2pm)	Late Afternoon (2pm–5pm)	Early Evening (5pm–7pm)
Monday					
Tuesday					
Wednesday					
Thursday					
Friday					

**Please return your survey to:**

Stacie Bowman  
Communications Specialist  
RI Department of Health  
3 Capitol Hill, Room 409, Providence, RI 02908  
Phone: 401-222-7462 Fax: 401-222-4415  
Email: [stacie.bowman@health.ri.gov](mailto:stacie.bowman@health.ri.gov)

Thank you for your time and consideration!

## Appendix I. References

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- <sup>1</sup> Healthy Rhode Islanders 2010. Available at: <http://www.health.ri.gov/hri2010/index.php>
- <sup>2</sup> WK Kellogg Foundation Logic Model Development Guide: <http://www.wkkf.org/Pubs/Tools/Evaluation/Pub3669.pdf>
- <sup>3</sup> Ogden CL, Carroll MD, Curtin LR, McDowell MA, Tabak CJ, Flegal KM. Prevalence of overweight and obesity in the United States, 1999-2004. JAMA 2006; 295: 1549-1555
- <sup>4</sup> National Survey of Children's Health, 2003
- <sup>5</sup> Sturm R, Wells KB. Does obesity contribute as much to morbidity as poverty or smoking? Public Health 2001 May;115(3):229-35
- <sup>6</sup> Flegal KM, Graubard BI, Williamson DF, Gail MH. Excess deaths associated with underweight, overweight, and obesity. JAMA. 2005 Apr 20;293(15):1861-7
- <sup>7</sup> Olshansky SJ et al. A Potential decline in life expectancy in the United States in the 21<sup>st</sup> Century. NEJM 2005, vol 352; 1138-1145
- <sup>8</sup> Results of phone surveys conducted by RI Dept of Health during 2002-2004 which asked Rhode Islander adults for their height and weight
- <sup>9</sup> Rhode Island Behavioral Risk Factor Surveillance System, 2002 \* 2004. Center for Health Data and Analysis, Rhode Island Department of Health, and supported in part by the National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention Cooperative Agreements U58/CCU100589 and U58/CCU122791
- <sup>10</sup> Palta M, Prineas RJ, Berman R, Hannan P. Comparison of self-reported and measured height and weight. Am J Epidemiol. 1982 Feb;115(2):223-30
- <sup>11</sup> National Health and Nutrition Examination Survey (NHANES)
- <sup>12</sup> Rhode Island Immunization Program, Division of Family Health, Rhode Island Department of Health
- <sup>13</sup> Polhamus B, Thompson D, Dalenius K, Borland E, Smith B, Grummer-Strawn L. Pediatric Nutrition Surveillance System (PedNSS) 2004 Report. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2004
- <sup>14</sup> 2001 Behavioral Risk Factor Surveillance System. Centers for Disease Control and Prevention.
- <sup>15</sup> The Henry J. Kaiser Family Foundation. Statehealthfacts.org. Poverty Rate by Race/Ethnicity, state data 2002-2003, U.S. 2003 <http://www.statehealthfacts.org/>
- <sup>16</sup> Williams DR. Race, socioeconomic status, and health. The added effects of racism and discrimination. Ann N Y Acad Sci. 1999;896:173-88



- 
- <sup>17</sup> 2005 Youth Risk Behavioral Surveillance Survey, Centers for Disease Control and Prevention.
- <sup>18</sup> Troiano RP Overweight Prevalence and Trends for Children and Adolescents: The National Health and Nutrition Examination Surveys, 1963 to 1991. *Archives of Pediatric and Adolescent Medicine* 149, no. 10 (1995): 1085–91
- <sup>19</sup> Strauss RS and Pollack HA, Epidemic Increase in Childhood Overweight, 1986–1998. *Journal of the American Medical Association* 286, no. 22 (2001): 2845–88.
- <sup>20</sup> RI Health Interview Survey
- <sup>21</sup> Prevalence of WIC children's Overweight and Obesity, Children 24-60 months of age, Rhode Island 2004
- <sup>22</sup> Must A, Spadano J, Coakley EH, Field AE, Colditz G, Dietz WH. The disease burden associated with overweight and obesity. *JAMA*. 1999 Oct 27;282(16):1523-9
- <sup>23</sup> U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; 2001. (Available from US GPO, Washington
- <sup>24</sup> Willett WC, Manson JE, Stampfer MJ, Colditz GA, Rosner B, Speizer FE, Hennekens CH. Weight, weight change, and coronary heart disease in women. Risk within the 'normal' weight range. *JAMA* 1995 Feb 8;273(6):461-65
- <sup>25</sup> Galanis DJ, Harris T, Sharp DS, Petrovitch H. Relative weight, weight change, and risk of coronary heart disease in the Honolulu Heart Program. *Am J Epidemiol* 1998 Feb 15;147(4):379-86
- <sup>26</sup> Centers for Disease Control and Prevention: Preventing Heart Disease and Stroke. Addressing the Nation's Leading Killers. At a Glance 2005
- <sup>27</sup> Hu FB, Manson JE, Stampfer MJ, et al. Diet, lifestyle, and the risk of type 2 diabetes mellitus in women. *N Engl J Med* 2001; 345:790-7
- <sup>28</sup> Weiderpass E, Persson I, Adami HO, Magnusson C, Lindgren A, Baron JA. Body size in different periods of life, diabetes mellitus, hypertension, and risk of postmenopausal endometrial cancer. *Cancer Causes Control* 2000 Feb;11(2):185-92
- <sup>29</sup> National Institutes of Health (NIH), National Heart, Lung, and Blood Institute (NHLBI). Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults. HHS, Public Health Service (PHS); 1998. pp.20-23
- <sup>30</sup> Global Strategy on Diet, Physical Activity and Health, Geneva, World Health Organization, 2004. U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001]. Available from: U.S. GPO, Washington

- 
- <sup>31</sup> Daniels SR. The consequences of childhood overweight and obesity. *Future Child*. 2006 Spring;16(1):47-67
- <sup>32</sup> Freedman DS, Dietz WH, Srinivasan SR, et al. The relation of overweight to cardiovascular risk factors among children and adolescents: the Bogalus heart study. *Pediatr*. 1999;103(6):1175-82
- <sup>33</sup> Pinhas-Hamiel O, Dolan L, Daniels S, et al. Increased incidence on non insulin-dependent diabetes mellitus among adolescents. *Pediatr*. 1996;128(5):608-615
- <sup>34</sup> Sinha R, Fisch G, Teague B, et al. Prevalence of impaired glucose tolerance among children and adolescents with marked obesity. *N Engl Med*. 2002; 346(11):802-810
- <sup>35</sup> Deckelbaum RJ et al. Childhood obesity: The health issue. *Obesity Research*. 2001; 9: 239S-243S
- <sup>36</sup> Strauss RS. Childhood obesity and self-esteem. *Pediatr*. 2000;105(1):1-5. Available at <http://www.pediatrics.org/cgi/content/full/105/1/e15>
- <sup>37</sup> American Obesity Association. AOA Fact Sheet. American Obesity Association, 2002. Last updated: May 2, 2005. Available at [http://www.obesity.org/subs/fastfacts/Obesity\\_Minority\\_Pop.shtml](http://www.obesity.org/subs/fastfacts/Obesity_Minority_Pop.shtml)
- <sup>38</sup> Sowers JR et al. Hypertension-related diseases in African Americans. *Postgraduate Medicine*. 2002; 112(4): 24-33
- <sup>39</sup> Cossrow N and Falkner B. Race/ethnic issues in obesity and obesity-related comorbidities. *J Clin Endocrinol Metab*. 2004 Jun;89(6):2590-4
- <sup>40</sup> BlackHealthCare.com. Available at: <http://www.blackhealthcare.com/BHC/IndexV1.asp>
- <sup>41</sup> National Heart, Lung, and Blood Institute (NHLBI). Healthy People 2010 Conference Edition. Heart Disease and Stroke. This chapter last reviewed November 30, 1999. Available at: <http://hin.nhlbi.nih.gov/2010Objs/12Heart.pdf>
- <sup>42</sup> Sturm R. "The Effects of Obesity, Smoking, and Drinking on Medical Problems and Costs." *Health Affairs* 2002, vol. 21, pp. 245-253
- <sup>43</sup> Finkelstein EA, Fiebelkorn IC, Wang G. National medical spending attributable to overweight and obesity: how much, and who's paying? *Health Aff (Millwood)*. 2003 Jan-Jun;Suppl Web Exclusives:W3-219-26
- <sup>44</sup> Thompson D, Wolf AM. The medical-care cost burden of obesity. *Obes Rev*. 2001 Aug;2(3):189-97
- <sup>45</sup> Wolf AM. What is the economic case for treating obesity? *Obes Res*. 1998 Apr;6 Suppl 1:2S-7S
- <sup>46</sup> American Cancer Society (ACS). Cancer Facts & Figures 2005. Atlanta, GA: ACS, 2005.

- 
- <sup>47</sup> American Heart Association (AHA). Heart Disease and Stroke Statistics -- 2005 Update. Dallas, TX: AHA, 2005.
- <sup>48</sup> American Diabetes Association. "Economic Costs of Diabetes in the U.S. in 2002." *Diabetes Care* 2003, vol. 26, pp. 917-932
- <sup>49</sup> National Osteoporosis Foundation. Osteoporosis Disease Statistics: Fast Facts. Available at: <http://www.nof.org/osteoporosis/stats.htm>.
- <sup>50</sup> Wang G, Dietz W. "Economic Burden of Obesity in Youths Aged 6-17 Years: 1979-1999." *Pediatrics* 2002, vol. 109, pp. e81
- <sup>51</sup> Dietary Guidelines for Americans 2005. U.S. Department of Health and Human Services, U.S. Department of Agriculture. Available at: <http://www.healthierus.gov/dietaryguidelines>
- <sup>52</sup> Centers for Disease Control and Prevention (CDC). "Trends in Intake of Energy and Macronutrients – United States, 1971-2000." *MMWR* 2004, vol. 53, pp. 80-82
- <sup>53</sup> Nielsen S, Seiga-Riz AM, and Popkin B. "Trends in Energy Intake in U.S. between 1977 and 1996: Similar Shifts Seen Across Age Groups." *Obesity Research* 2002, vol. 10, pp. 370-378
- <sup>54</sup> Basiotis PP, et al. "The Healthy Eating Index: 1999-2000." Washington, D.C.: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 1992
- <sup>55</sup> Munoz K, et al. "Food Intakes of U.S. Children and Adolescents Compared with Recommendations." *Pediatrics* 1997, vol. 100, pp. 323-329
- <sup>56</sup> Luckett Clark S, Weismantle M. 2003. Employment Status: 2000. Census 2000 Brief. U.S. Department of Commerce. Available at: <http://www.census.gov/prod/2003pubs/c2kbr-18.pdf>
- <sup>57</sup> French SA, Story M, Jeffrey RW. 2001. Environmental influences on eating and physical activity. *Annu Rev Public Health* 22:309-335
- <sup>58</sup> U.S. Department of Agriculture., Agricultural Research Service (2004, January 5). Survey links fast food, poor nutrition among U.S. Children. Available at: <http://www.ars.usda.gov/is/pr/2004/040105.htm>
- <sup>59</sup> Lin BH, Frazao E. Away-From-Home Foods Increasingly Important to Quality of American Diet. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture; and Joanne Guthrie, Food and Drug Administration, U.S. Department of Health and Human Services. Agriculture Information Bulletin No. 749.
- <sup>60</sup> Biing-Hwan L, Frazao E. Nutritional quality of foods at and away from home. In: Food Review. Washington, DC: US Department of Agriculture, 1997: 22-40. Available at: <http://www.ers.usda.gov/publications/foodreview/aug1997/may97h.pdf>
- <sup>61</sup> USDA. Continuing survey of food intakes by individuals, 1994-1996. Washington, DC: US Department of Agriculture, 1997

- 
- <sup>62</sup> Young DR, Haskell WL, Taylor CB, Fortmann SD. Effect of community health education on physical activity knowledge, attitudes, and behavior. *Am J Epidemiol* 1996; 144:264-74
- <sup>63</sup> National Research Council. Recommended dietary allowances. 9th rev. ed. Washington: National Academy Press; 1989
- <sup>64</sup> Produce for Better Health Foundation. State of the Plate: Study on American's Consumption of Fruits and Vegetables. 2003. Available at: <http://www.pbhfoundation.org>
- <sup>65</sup> Hurley J, Liebman B. 2004. Kids' Cuisine: "What would you like with your fries?" Nutrition Action Health Letter. Washington, DC: CSPI
- <sup>66</sup> Calories Count. Report of the Working Group on Obesity. Cener for Safety and Applied Nutrition [Online]. Available: <http://www.cfsan.fda.gov/~dms/owg-toc.html>
- <sup>67</sup> Food Marketing Institute. 2003. Trends in the United States: Consumer attitudes and the Supermarket 2003. Washington DC: Food Marketing Institute
- <sup>68</sup> Sturm R, Childhood obesity-what we can learn from existing data on societal trends, part 2. Prep Chronic Dies 2005
- <sup>69</sup> Jahns L, Siega-Riz AM, Popokin BM. 2001. The increasing prevalence of snacking among US children from 1977 to 1996. *J Pediatr* 138(4): 493-498
- <sup>70</sup> Young LR, Nestle M. The contribution of expanding portion sizes to the U.S. obesity epidemic. *American Journal of Public Health* 2002; 92 (2): 246-49
- <sup>71</sup> Rolls BJ, Engell D, Birch LL. "Serving Portion Size Influences 5-Year-Old But Not 3-Year-Old Children's Food Intake." *Journal of the American Dietetic Association* 2000, vol. 100, pp. 232-234
- <sup>72</sup> Wan sink B. "Can Package Size Accelerate Usage Volume?" *Journal of Marketing* 1996, vol. 60, pp. 1-14
- <sup>73</sup> Booth DA, Fuller J, Lewis V. "Human Control of Body Weight: Cognitive or Physiological? Some Energy Related Perceptions and Misperceptions." In: Coffin LA, James WPT, Van Italia TB, eds. *The Body Weight Regulatory System: Normal and Disturbed Mechanisms*. New York, NY: Raven Press, 1981, pp. 305-314
- <sup>74</sup> Kraak V, Pelletier DL. How marketers reach young consumers: Implications for nutrition education and health promotion campaigns. *Fam Econ Nutr Rev* 1998;11:31-41
- <sup>75</sup> Kraak V, Pelletier DL. The influence of commercialism on the food purchasing behavior of children and teenage youth. *Fam Econ Nutr Rev* 1998;11:15-24
- <sup>76</sup> Valkenburg PM. Media and youth consumerism. *J Adolesc Health* 2000;27:52-56
- <sup>77</sup> American Academy of Pediatrics. Children, adolescents, and advertising. *Pediatrics* 1995;95:295-297

- 
- <sup>78</sup> Fried EJ, Nestle M. The growing political movement against soft drinks in schools. *JAMA* 2002;288:2181
- <sup>79</sup> Brownell K. 2004. *Food Fight: The inside Story of the Food Industry, America's Obesity Crisis, and What We Can Do About It*. New York: McGraw-Hill
- <sup>80</sup> Strasburger VC. Children and TV advertising: nowhere to run, nowhere to hide. *J Dev Behav Pediatr* 2001;22:185-187
- <sup>81</sup> Advertising and Children: Is advertising a fair game for kids? Available at: [www.youngmedia.org.au/pdf/publications/advertising\\_children.pdf](http://www.youngmedia.org.au/pdf/publications/advertising_children.pdf)
- <sup>82</sup> World Health Organization. Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Disease. Geneva: World Health Organization, 2003.
- <sup>83</sup> Centers for Disease Control and Prevention. School Health Policies and Programs Study; 2000. Available at: <http://www.cdc.gov/nccdphp/dash/shpps/>
- <sup>84</sup> Center for Science in the Public Interest. Dispensing Junk: How School Vending Undermines Efforts to Feed Children Well. May 2004
- <sup>85</sup> Democratic Staff of the Senate Committee on Agriculture, Nutrition and Forestry, May, 2004. Food Choices at School: Risk to Child Nutrition and Health Call for Action
- <sup>86</sup> Cullen, K, Azeri, L, Fruits, vegetables, milk and sweetened beverages consumption and access to a la carte/snack bar meals at schools. *Am J Pub Health*. 2004;94:463-467
- <sup>87</sup> US General Accounting Office. Public education: Commercial activities in schools. Report to congressional requesters. GAO/HEHS-00-156. US General Accounting Office, 2000
- <sup>88</sup> Nestle M. Food Politics: How the Food Industry Influences Nutrition and Health. Los Angeles: University of California Press, 2002
- <sup>89</sup> Nestle M. Soft drink "pouring rights": marketing empty calories to children. *Public Health Rep* 2000;115:308-319
- <sup>90</sup> Texas Department of Agriculture Website. 2004
- <sup>91</sup> Action for Healthy Kids. Taking Action for Healthy Kids: A Report on the Healthy Schools Summit and the Action for Healthy Kids Initiative; 2002
- <sup>92</sup> Democratic Staff of the Senate Committee on Agriculture, Nutrition and Forestry, Food Choices at School: Risk to Child Nutrition and Health Call for Action, May 2004
- <sup>93</sup> Making It Happen, in press, Department of Health and Human Services, United States Department of Agriculture, and Department of Education. 2004
- <sup>94</sup> *The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools*. Action for Healthy Kids. Available at: [www.actionforhealthykids.org](http://www.actionforhealthykids.org)

- 
- <sup>95</sup> Combustive A, Allison D. The search for human obesity genes. *Science* 1998;280:1374–7
- <sup>96</sup> Moorland K, Wing S, Diez Roux A. The contextual effect of the local food environment on residents' diets: the atherosclerosis risk in communities study. *Am J Public Health* 2000;92:1761–7
- <sup>97</sup> Fox MK, Pac S, Devaney B, Jankowski L. 2004. Feeding infants and toddlers study: What foods are infants and toddlers eating? *J Am Diet Assoc* 104 (1 Suppl 1): S22-S30
- <sup>98</sup> Roberts SB, Heyman MB. Micronutrient shortfalls in young children's diets: Common, and owing to inadequate intakes both at home and at child care centers. *Nutr Rev*. 2000; 58:27-29
- <sup>99</sup> Wu Y, Hertzler A, Miller S. Vitamin A, vitamin C, calcium and iron content of federally funded preschool lunches in Virginia. *J Am Diet Assoc*. 2001; 101: 348-351
- <sup>100</sup> 2003 Youth Risk Behavior Survey (YRBS) study. *Am J Health Promot*. 2000;14:222–228
- <sup>101</sup> Tohill BC, Seymour J, Serdula M, Kettel-Khan L, Rolls BJ. What Epidemiologic Studies Tell Us about the Relationship between Fruit and Vegetable consumption and Body Weight. *Nutrition Reviews* 2004; 62(10):365-374
- <sup>102</sup> Gustaffson K, Asp N-G, Hagander B, Nyman M, Schweizer T. Influence of processing and cooking of carrots in mixed meals on satiety, glucose and hormonal response. *Int J Food Sci Nutr* 1995;46:327-34
- <sup>103</sup> Bolton RP, Healon KW, Murphy D, Burroughs LF. Depletion and disruption of dietary fibre. Effects on satiety, plasma-glucose and serum insulin. *Lancet* 1977; 2: 679-82
- <sup>104</sup> Field AE, Gillman MW, Rosner B, Rockett HR, Colditz GA. Association between fruit and vegetable intake and change in body mass index among a large sample of children and adolescents in the United States. *Int J Obes Relat Metab Disord*. 2003;27:821-826
- <sup>105</sup> Lin BH, Morrison RM. Higher fruit consumption linked with lower body mass index. *Food Review*. 2002; 25:28-32
- <sup>106</sup> Kahn HS, Tatham LM, Rodriguez C, et al. Stable behaviors associated with adults' 10-year change in the body mass index and likelihood of gain at waist. *Am J Public Health* 1997;87:747-754
- <sup>107</sup> Ammerman AS, Lindquist CH, Lohr KN, Hersey J. The efficacy of behavioral interventions to modify dietary fat and fruit and vegetable intake: A review of the evidence. *Preventive Medicine*. 2002;35:25-41
- <sup>108</sup> Seymour JD, Yaroch AL, Serdula M, Blanck HM, Khan LK. Impact of nutrition environmental interventions on point-of-purchase behavior in adults: A review. *Preventive Medicine*. 2004; 39(Supplement 2): S108-S136
- <sup>109</sup> Position of the American Dietetic Association: Dietary Guidance for Healthy Children Ages 2 to 11 Years. *J Am Diet Assoc*. 2004; 104:660-677

- 
- <sup>110</sup> Behavioral Risk Factor Surveillance System, 2003
- <sup>111</sup> Whiting SJ, Healey A, Psiuk S. Relationship between carbonated and other low nutrient dense beverages and bone mineral content of adolescents. *Nutr Res.* 2001;21:1107–15
- <sup>112</sup> Goulding A, Cannan R, Williams SM, et al. Bone mineral density in girls with forearm fractures. *J Bone Miner Res.* 1998;13:143–8
- <sup>113</sup> Wyshak, G. Teenaged girls, carbonated beverage consumption, and bone fractures. *Arch Pediatr Adolesc Med.* 2000;154:610–3
- <sup>114</sup> Rampersaud et GC,. Bailey LB, Kauwell GPA. 2003. National survey beverage consumption data for children and adolescents indicate the need to encourage a shift toward more nutritive beverages. *J Am Diet Assoc* 103 (1):97-100
- <sup>115</sup> Mrdjenovic G, Levitsky DA. Nutritional and energetic consequences of sweetened drink consumption in 6- to 13-year-old children. *J Pediatr.* 2003;142:604–10.][Cullen KW, Ash DM, Warneke C, et al. Intake of soft drinks, fruit-flavored beverages, and fruits and vegetables by children in grades 4 through 6. *Am J Pub Health.* 2002;92:1475–8
- <sup>116</sup> Shenkin J, Heller K, Warren J, Marshall T. “Soft Drink Consumption and Caries Risk in Children and Adolescents.” *General Dentistry* 2003, vol. 51, pp. 30-36
- <sup>117</sup> Ludwig DS, Peterson KE, Gortmaker SL. Relationship between consumption of sugar sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet.*2001;357:505–8
- <sup>118</sup> James J, Thomas P, Cavan D, Kerr D. 2004. Preventing childhood obesity by reducing consumption of carbonated drinks: Cluster randomized controlled trial. *Br Med J.* 2004; 328(7450): 1237
- <sup>119</sup> James J, Thomas P, Cavan D, Kerr D. Preventing childhood obesity by reducing consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis. *Lancet* 2001; 357:505-508
- <sup>120</sup> Giammattei J, Blix G, Marshak HH, et al. Television watching and soft drink consumption. *Arch Pediatr Adolesc Med.* 2003;157:882–6
- <sup>121</sup> Troiano RP, Briefel RR, Carroll MD, et al. Energy and fat intakes of children and adolescents in the United States: data from the National Health and Nutrition Examination Surveys. *Am J Clin Nutr.* 2000;72(suppl):1343S–53S
- <sup>122</sup> Berkey CS, Rockett HR, Field AE, et al. Sugar-added beverages and adolescent weight change. *Obes Res.* 2004;12:778–88
- <sup>123</sup> Schulze MB, Manson JE, Ludwig DS, et al. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. *JAMA.* 2004;292:927–34
- <sup>124</sup> Apovian CM. Sugar-sweetened soft drinks, obesity, and type 2 diabetes. *JAMA.*2004;292:978–9

- 
- <sup>125</sup> Raben A, Vasilaras TH, Moller AC, et al. Sucrose compared with artificial sweeteners: different effects on ad libitum food intake and body weight after 10 wks of supplementation in overweight subjects. *Am J Clin Nutr.* 2002;76:721-9
- <sup>126</sup> Tordoff MG, Alleva AM. Effect of drinking soda sweetened with aspartame or high-fructose corn syrup on food intake and body weight. *Am J Clin Nutr.* 1990;51:963-9
- <sup>127</sup> Teff KL, Elliott SS, Tschop M, et al. Dietary fructose reduces circulation insulin and leptin, attenuates postprandial suppression of ghrelin, and increases triglycerides in women. *J Clin Endocrinol Metab.* 2004; 89:2963-72
- <sup>128</sup> Chanmugam P, Morton JF, Guthrie JF. Reported changes in energy and fat intakes in adults and their food group sources [abstract]. *FASEB J* 1998;12:A844
- <sup>129</sup> Rhode Island Health Interview Survey, 2004
- <sup>130</sup> Guthrie JF, Morton JF. Food sources of added sweeteners in the diets of Americans. *J Am Diet Assoc* 2000; 100:43-51
- <sup>131</sup> Gleason P, Suitor C. 2001. Children's Diets in the Mid-1990's: Dietary Intake and Its Relationship with School Meal Participation. Report No. CN-01-CD1. Alexandria, VA: USDA
- <sup>132</sup> Harnack L, Stang J, Story M. Soft drink consumption among US children and adolescents: nutritional consequences. *J Am Diet Assoc* 1999; 99:436-41
- <sup>133</sup> Rolls BJ, Bell EA. Dietary approaches to the treatment of obesity. *Medical Clinics of North America* 2000;84:401-18
- <sup>134</sup> Astrup A. The role of dietary fat in the prevention and treatment of obesity. Efficacy and safety of low-fat diets. *International Journal of Obesity* 2001; 25 (suppl):S46-S50
- <sup>135</sup> Hill J, Melanson EL, et al. Dietary fat intake and regulation of energy balance implications for obesity. *Journal of Nutrition* 2000;130:284S-88S
- <sup>136</sup> French S, Harnack L, Jeffery R. Fast food restaurant use among women in the Pound of Prevention study: dietary, behavioral and demographic correlates. *Int J Obes* 2000;24:1353-9
- <sup>137</sup> Jeffery R, French S. Epidemic obesity in the United States: are fast foods and television viewing contributing? *Am J Public Health* 1998;88:277-80
- <sup>138</sup> National Heart, Lung, and Blood Institute and Office of Research on Minority Health. Embrace Your Health: Lose Weight If You Are Overweight. NIH Pub. No. 97-4061. Sept. 1997. Available at: <http://www.nhlbi.nih.gov/health/Public/heart/other/chdblack/embrace.pdf>
- <sup>139</sup> Food, Nutrition, and Consumer Services/USDA 2001; National Center for Chronic Disease Prevention and Health Promotion
- <sup>140</sup> Massachusetts Medical Society Committee on Nutrition. Fast-food fare. *N Engl J Med* 1989;321:752-6



- 
- <sup>141</sup> Sloan EA. 2003 What, when, and where Americans eat. *Food Techn* 57(8):48-66
- <sup>142</sup> Heinig MJ, Dewey KG. Health advantages of breastfeeding for mothers: a critical review. *Nutr Res Rev* 1997; 10: 35–56
- <sup>143</sup> Uhari M, Matysaari K, Niemela M. Ameta-analytic review of the risk factors for acute otitis media. *Clin Infect Dis* 1996; 22: 1079–1083
- <sup>144</sup> Anderson JW, Johnstone BM, Remley DT. Breastfeeding and cognitive development: a meta-analysis. *Am J Clin Nutr* 1999; 70: 525–535
- <sup>145</sup> Drane DL, Logemann JA. A critical evaluation of the evidence on the association between type of infant feeding and cognitive development. *Pediatr Epidemiol* 2000; 14: 349–356
- <sup>146</sup> Lykke Mortensen E, Fleischer Michaelsen K, Sanders SA, Reinisch JM. The association between duration of breastfeeding and adult intelligence. *JAMA* 2002; 287: 2365–2371
- <sup>147</sup> Davis MK. Review of the evidence for an association between infant feeding and childhood cancer. *In J Cancer Suppl* 1998; 11: 29–33
- <sup>148</sup> Gdalevich M, Mimouni D, Mimouni M. Breast-feeding and the risk of bronchial asthma in childhood: a systematic review with meta-analysis of prospective studies. *J Pediatr* 2001; 139: 261–266
- <sup>149</sup> Dewey KG, Heinig MJ, Nommsen LA. Maternal weight-loss patterns during prolonged lactation. *Am J Clin Nutr.* 1993;58 :162–166
- <sup>150</sup> Newcomb PA, Storer BE, Longnecker MP, et al. Lactation and a reduced risk of premenopausal breast cancer. *N Engl J Med.* 1994;330 :81-87
- <sup>151</sup> Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. *Lancet.* 2002;360 :187–195
- <sup>152</sup> Lee SY, Kim MT, Kim SW, Song MS, Yoon SJ. Effect of lifetime lactation on breast cancer risk: a Korean women's cohort study. *Int J Cancer.* 2003;105 :390–393
- <sup>153</sup> Tryggvadottir L, Tulinius H, Eyfjord JE, Sigurvinsson T. Breastfeeding and reduced risk of breast cancer in an Icelandic cohort study. *Am J Epidemiol.* 2001;154:37–42
- <sup>154</sup> Enger SM, Ross RK, Paganini-Hill A, Bernstein L. Breastfeeding experience and breast cancer risk among postmenopausal women. *Cancer Epidemiol Biomarkers Prev.* 1998;7 :365–369
- <sup>155</sup> Jernstrom H, Lubinski J, Lynch HT, et al. Breast-feeding and the risk of breast cancer in BRCA1 and BRCA2 mutation carriers. *J Natl Cancer Inst.* 2004;96 :1094–1098

- 
- <sup>156</sup> Rosenblatt KA, Thomas DB. Lactation and the risk of epithelial ovarian cancer. WHO Collaborative Study of Neoplasia and Steroid contraceptives. *Int J Epidemiol.* 1993;22 :192–197
- <sup>157</sup> Cumming RG, Klineberg RJ. Breastfeeding and other reproductive factors and the risk of hip fractures in elderly women. *Int J Epidemiol.* 1993;22 :684–691
- <sup>158</sup> Lopez JM, Gonzalez G, Reyes V, Campino C, Diaz S. Bone turnover and density in healthy women during breastfeeding and after weaning. *Osteoporos Int.* 1996;6 :153–159
- <sup>159</sup> Paton LM, Alexander JL, Nowson CA, et al. Pregnancy and lactation have no long-term deleterious effect on measures of bone mineral in healthy women: a twin study. *Am J Clin Nutr.* 2003;77 :707–714
- <sup>160</sup> Chua S, Arulkumaran S, Lim I, Selamat N, Ratnam SS. Influence of breastfeeding and nipple stimulation on postpartum uterine activity. *Br J Obstet Gynaecol.* 1994;101:804–805
- <sup>161</sup> Kennedy KI, Lobbok MH, Van Look PF. Lactational amenorrhea method for family planning. *Int J Gynaecol Obstet.* 1996;54 :55–57
- <sup>162</sup> Lobbok MH. Effects of breastfeeding on the mother. *Pediatr Clin North America* 2001; 48: 143–158
- <sup>163</sup> Lawrence RA, Lawrence RM. *Breastfeeding: a guide for the medical profession.* 5th edition. Mosby, St. Louis, 1999
- <sup>164</sup> Tuttle CR, Dewey KG. Potential cost savings for Medi-Cal, AFDC, food stamps, and WIC programs associated with increasing breast-feeding among low-income Hmong women in California. *J Am Diet Assoc.* 1996;96 :885–890
- <sup>165</sup> Ball TM, Wright AL. Health care cost of formula-feeding in the first year of life. *Pediatrics.* 1999;103 :870–876
- <sup>166</sup> Weimer J. *The Economic Benefits of Breast Feeding: A Review and Analysis.* Food Assistance and Nutrition Research Report No. 13. Washington, DC: Food and Rural Economics Division, Economic Research Service, US Department of Agriculture; 2001
- <sup>167</sup> Levine RE, Huffman SL, Center to Prevent Childhood Malnutrition. *The Economic Value of Breastfeeding, the National, Public Sector, Hospital and Household Levels: A Review of the Literature.* Washington, DC: Social Sector Analysis Project, Agency for International Development; 1990
- <sup>168</sup> Jarosz LA. Breast-feeding versus formula: cost comparison. *Hawaii Med J.* 1993;52 :14 – 18  
Cohen R, Mrtek MB, Mrtek RG. Comparison of maternal absenteeism and infant illness rates among breast-feeding and formula-feeding women in two corporations. *Am J Health Promot.* 1995;10 :148–153
- <sup>169</sup> Grummer-Strawn LM, Mei Z. Does breastfeeding protect against pediatric overweight? Analysis of longitudinal data from the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. *Pediatrics.* 2004;113(2)

- 
- <sup>170</sup> Armstrong J, Reilly JJ, Child Health Information Team. Breastfeeding and lowering the risk of childhood obesity. *Lancet*. 2002;359:2003–2004
- <sup>171</sup> Dewey KG, Heinig MJ, Nommsen LA, Peerson JM, Lonnerdal B. Breast-fed infants are leaner than formula-fed infants at 1 year of age: the DARLING study. *Am J Clin Nutr*. 1993;57:140–145
- <sup>172</sup> Arenz S, Ruckerl R, Koletzko B, Von Kries R. Breast-feeding and childhood obesity—a systematic review. *Int J Obes Relat Metab Disord*. 2004;28:1247–1256
- <sup>173</sup> Stettler N, Zemel BS, Kumanyika S, Stallings VA. Infant weight gain and childhood overweight status in a multicenter, cohort study. *Pediatrics*. 2002;109:194–199
- <sup>174</sup> Gillman MW, Rifas-Shiman SL, Camargo CA, Jr et al. Risk of overweight among adolescents who were breastfed as infants. *JAMA*, 2001; 285:2461-2467
- <sup>175</sup> Toschke AM, Vignero J, Lhotska L, Osancova K, Koletzko B, von Kries R. Overweight and obesity in 6- to 14-year old Czech children in 1991: protective effect of breast-feeding. *J Pediatr*. 2002;141:764–769
- <sup>176</sup> American Academy of Pediatrics, Committee on Nutrition. Prevention of Pediatric Overweight and Obesity. *Pediatrics*. 2003;112:424–430
- <sup>177</sup> Owen CG, Martin RM, Whincup PH, Smith GD, Cook DG. Effect of Infant Feeding on the Risk of Obesity Across the Lifespan: Quantitative Review of Published Evidence. *Pediatrics* 2005; 115:1367-1377
- <sup>178</sup> Dewey KD. Is breastfeeding protective against child obesity? *J Hum Lact*. 2003; 19:9-18
- <sup>179</sup> Harder T, Bergmann R, Kallischnigg G, Plagemann A. *Am J Epidemiol*. 2006; 1; 163 (9):870-2.
- <sup>180</sup> American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics* 1997; 100: 1035–1039
- <sup>181</sup> Institute of Medicine. *Nutrition during lactation*. Washington, DC: National Academy Press, 1991
- <sup>182</sup> Gartner LM, Morton J, Lawrence RA, Naylor AJ, O'Hare D, Schanler RJ, Eidelman AI; American Academy of Pediatrics Section on Breastfeeding. American Academy of Pediatrics. Policy Statement. Breastfeeding and the use of human milk. 2005; *Pediatrics*. 2005 Feb;115(2):496-506
- <sup>183</sup> 2004 National Immunization Survey, Centers for Disease Control and Prevention, Department of Health and Human Services
- <sup>184</sup> Caulfield LE, Gross SM, Bentley ME, et al. WIC-based interventions to promote breastfeeding among African American women in Baltimore: effects on breastfeeding initiation, and continuation. *Journal of Human Lactation* 1998;14(1):15-22

- 
- <sup>185</sup> Taveras EM, Li R, Grummer-Strawn LM, et al. Opinions and practices of clinicians associated with continuation of exclusive breastfeeding. *Pediatrics* 2004;113(4):E283-90
- <sup>186</sup> Taveras EM, Li R, Grummer-Strawn LM, et al. Mothers' and preventive visits. *Pediatrics* 2004;113(5): E405-11
- <sup>187</sup> DiGirolamo AM, Grummer-Strawn LM, Fein SB. Do perceived attitudes of physicians and hospital staff affect breastfeeding decisions? *Birth* 2003;30(2):94-100
- <sup>188</sup> Freed GL, Clark SJ, Sorenson J, Lohr JA, Cefalo R, Curtis P. National assessment of physicians' breastfeeding knowledge, attitudes, training and experience. *JAMA*. 1995; 273(6):472-6
- <sup>189</sup> Shealy KR Li R, Benton-Davis S, Grummer-Strawn LM. The CDC Guide to Breastfeeding Interventions. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2005
- <sup>190</sup> McLorg PA, Bryant CA. Influence of social network members and health care professionals on infant feeding practices of economically disadvantaged mothers. *Medical Anthropology* 1989;10(4):265-78
- <sup>191</sup> Shields M. Parenting study gives birth to new media strategy: no media. *Media Daily News* 2004, July 22
- <sup>192</sup> Mitra AK, Khoury AJ, Hinton AW, Carothers C. Predictors of breastfeeding intention among low-income women. *Maternal Child Health Journal* 2004;8(2):65-70
- <sup>193</sup> Guttman N, Zimmerman DR. Low-income mothers' views on breastfeeding. *Soc Sci Med*. 2000; 50:1457-1473
- <sup>194</sup> Noble S. Maternal employment and the initiation of breastfeeding. *Acta Paediatr*. 2001;90:423-428
- <sup>195</sup> Fein SB, Roe B. The effect of work status on initiation and duration of breast feeding. *Am J Public Health* 1998; 88(7): 1042-1046
- <sup>196</sup> Lindberg LD. Trends in the relationship between breastfeeding and postpartum employment in the United States. *Soc Biol* 1996;43:191-202
- <sup>197</sup> U.S. Department of Labor: Women's Jobs: 1964-199. Washington, DC: U.S. Department of Labor, Women's Bureau. 1999
- <sup>198</sup> Corbett-Dick P, Bezek SK. Breastfeeding promotion for the employed mother. *J Pediatr Health Care* 1997;11:12-9
- <sup>199</sup> Frank E. Breastfeeding and maternal employment: two rights don't make a wrong. *Lancet* 1998;352:1083-4
- <sup>200</sup> McLeod D, Pullon S, Cookson T. Factors influencing continuation of breastfeeding in a cohort of women. *J Hum Lact* 2002;18:335-43

- 
- <sup>201</sup> Groh-Wargo S, Toth A, Mahoney K, Simonian S, Wasser T, Rose S. The utility of a bilateral breast pumping system for mothers of premature infants. *Neonatal Netw.* 1995;14:31-36
- <sup>202</sup> Meek JY. Breastfeeding in the workplace. *Pediatr Clin North Am.* 2001;48:461-47
- <sup>203</sup> Donnelly A, Snowden HM, Renfrew MJ, Woolridge MW. Commercial hospital discharge packs for breastfeeding women (Cochrane review). In: The Cochrane Library, Issue 2, 2004. Chichester, UK: John Wiley & Sons, Ltd.
- <sup>204</sup> Howard C, Howard F, Lawrence R, Andresen E, DeBliek E, Weitzman M. Office prenatal formula advertising and its effect on breastfeeding patterns. *Obstetrics and Gynecology* 2000;95(2):296-303
- <sup>205</sup> Li R, Fridinger F, Grummer-Strawn LM. Public perceptions on breastfeeding constraints. *Journal of Human Lactation* 2002;18(3):227-35
- <sup>206</sup> DiPietro L. Physical activity, body weight, and adiposity: an epidemiologic perspective. *Exerc Sport Sci Rev.* 1995;23:275-303
- <sup>207</sup> Ching PL, Willett WC, Rimm EB, Colditz GA, Gortmaker SL, Stampfer MJ. Activity level and risk of overweight in male health professionals. *Am J Public Health.* 1996 Jan;86(1):25-30
- <sup>208</sup> Williamson DF, Madans J, Anda RF, Kleinman JC, Kahn HS, Byers T. Recreational physical activity and ten-year weight change in a US national cohort. *Int J Obes Relat Metab Disord.* 1993 May;17(5):279-86.
- <sup>209</sup> French SA, Jeffery RW, Forster JL, McGovern PG, Kelder SH, Baxter JE. Predictors of weight change over two years among a population of working adults: the Healthy Worker Project. *Int J Obes Relat Metab Disord.* 1994 Mar;18(3):145-54
- <sup>210</sup> Stefanick ML. Exercise and weight control. *Exer Sport Sci Review*, 1993; 21: 363-96] [Thompson PD. Cardiovascular hazards of physical activity. *Exerc Sport Sci Rev.* 1982;10:208-35
- <sup>211</sup> Thompson PD. Cardiovascular hazards of physical activity. *Exerc Sport Sci Rev.* 1982;10:208-35
- <sup>212</sup> Wilmore JH. Body composition in sport and exercise: directions for future research. *Med Sci Sports Exerc.* 1983;15(1):21-31
- <sup>213</sup> Ballor DL, Keesey RE. A meta-analysis of the factors affecting exercise-induced changes in body mass, fat mass and fat-free mass in males and females. *Int J Obes.* 1991 Nov;15(11):717-26
- <sup>214</sup> Epstein LH, Wing RR. Aerobic exercise and weight. *Addict Behav.* 1980;5(4):371-88
- <sup>215</sup> Pate R, Pratt M, Blair SN et al: Physical activity and public health: A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *JAMA*, 1995; 273: 402–7

---

<sup>216</sup> Healthy People 2010

<sup>217</sup> Strong WB, Malina RM, Blimkie CJ, Daniels SR, Dishman RK, Gutin B, Hergenroeder AC, Must A, Nixon PA, Pivarnik JM, Rowland T, Trost S, Trudeau F. Evidence based physical activity for school-age youth. *J Pediatr*. 2005 Jun;146(6):732-7

<sup>218</sup> National Association for Sport and Physical Education. Active Start: A Statement of Physical Activity Guidelines for Children Birth to Five Years. 1900 Association Drive, Reston, VA. 2001

<sup>219</sup> Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention, 2005

<sup>220</sup> Youth Risk Behavioral Surveillance Survey, Centers for Disease Control and Prevention, 2003

<sup>221</sup> Lanningham-Foster L, Nysse LJ, Levine JA. Labor saved, calories lost: the energetic impact of domestic labor-saving devices. *Obes Res*. 2003 Oct;11(10):1178-81.

<sup>222</sup> US Department of Labor Statistics. Issues in Labor. How Long is the Work Week? <http://www.bls.gov/opub/ils/pdf/opbils09.pdf> Accessed 7/11/05

<sup>223</sup> Hofferth SL, Sandberg JF. Changes in American children's time, 1981-1997. September 11, 2000. <http://ceel.psc.isr.umich.edu/pubs/papers/ceel013-00.pdf> Accessed July 2005

<sup>224</sup> Ham SA, Macera CA, Lindley C. Trends in walking for transportation in the United States, 1995 and 2001. *Preventing Chronic Disease*, 2005; 2(4): 1-10

<sup>225</sup> US Department of Transportation, Federal Highway Administration. 1969 National Personal Transportation Survey: travel to school. Washington, DC: US Department of Transportation; 1972. Available at <http://www.fhwa.dot.gov/ohim/1969/q.pdf>

<sup>226</sup> US Environmental Protection Agency. Travel and environmental implications of school siting. Washington, DC: US Environmental Protection Agency; 2003. Available at [http://www.epa.gov/smartgrowth/pdf/school\\_travel.pdf](http://www.epa.gov/smartgrowth/pdf/school_travel.pdf)

<sup>227</sup> Saelens BE, Sallis JF, Black JB, Chen D. Neighborhood-based differences in physical activity: an environment scale evaluation. *Am J Public Health*. 2003 Sep;93(9):1552-8] [Handy SL, Boarnet MG, Ewing R, Killingsworth RE. How the built environment affects physical activity: views from urban planning. *Am J Prev Med*. 2002 Aug;23(2 Suppl):64-73

<sup>228</sup> Handy SL, Boarnet MG, Ewing R, Killingsworth RE. How the built environment affects physical activity: views from urban planning. *Am J Prev Med*. 2002 Aug;23(2 Suppl):64-73

<sup>229</sup> Local Government Commission. Street Design. <http://www.lgc.org/transportation/street.html> Accessed 7/5/05

<sup>230</sup> Finn K, Johannsen N, and Specker B, "Factors Associated with Physical Activity in Preschool Children," *Journal of Pediatrics* 140, no. 1 (2002): 81–85

- 
- <sup>231</sup> Pate RR et al, "Physical Activity among Children Attending Preschools," *Pediatrics* 114, no. 5 (2004): 1258–63
- <sup>232</sup> School Health Policies and Programs Study 2000. Fact Sheet Physical Education and Activity. <http://www.cdc.gov/HealthyYouth/shpps/factsheets/pdf/pe.pdf> Accessed 7/11/05
- <sup>233</sup> Results of 2001 Rhode Island survey sent to schools, in RI Physical Education Framework March 2003. Healthy Schools! Healthy Kids! (RI Department of Education and RI Department of Health) And RIAHPERD
- <sup>234</sup> Halpern R. Physical (in)activity among low-income children and youth. New York: The After School Project of the Robert Wood Johnson Foundation. 2003
- <sup>235</sup> Powell KE, Martin LM, Chowdhury PP Places to walk: convenience and regular physical activity. *Am J Public Health*. 2003 Sep;93(9):1519-21
- <sup>236</sup> Sallis JF, McKenzie TL, Elder JP, Broyles SL, Nader PR. Factors parents use in selecting play spaces for young children. *Arch Pediatr Adol Med* 1997; 151(4): 414-7
- <sup>237</sup> DiGuseppi C, Roberts I, Li L, Allen D. Determinants of car travel on daily journeys to school: cross sectional survey of primary school children. *BMJ*. 1998 May 9;316(7142):1426-8
- <sup>238</sup> Klesges RC, Eck LH, Hanson CL, Haddock CK, Klesges LM. Effects of obesity, social interactions, and physical environment on physical activity in preschoolers. *Health Psychol*. 1990;9(4):435-49
- <sup>239</sup> Sallis JF, Nader PR, Broyles SL, Berry CC, Elder JP, McKenzie TL, Nelson JA. Related Articles, Links Correlates of physical activity at home in Mexican-American and Anglo-American preschool children. *Health Psychol*. 1993 Sep;12(5):390-8
- <sup>240</sup> Stanger, Jeffrey D., & Natalia Gridina. Media in the Home 1999: The Fourth Annual Survey of Parents and Children. Annenberg Public Policy Center, 1999. [http://www.appcpenn.org/05\\_media\\_developing\\_child/mediasurvey/mediasurvey.htm](http://www.appcpenn.org/05_media_developing_child/mediasurvey/mediasurvey.htm)
- <sup>241</sup> Screened In: How excessive screen time promotes obesity. A review of the literature. TV Turnoff Network, Washington DC. 2004
- <sup>242</sup> Eisenmann JC, Bartee RT, Wang MQ. Physical activity, TV viewing, and weight in U.S. youth: 1999 Youth Risk Behavior Survey. *Obes Res*. 2002 May;10(5):379-85
- <sup>243</sup> DuRant RH, Baranowski T, Johnson M, Thompson WO. The relationship among television watching, physical activity, and body composition of young children. *Pediatrics*. 1994 Oct;94(4 Pt 1):449-55
- <sup>244</sup> Rideout V, Vandewater E, Wartella E. Zero to Six: Electronic Media in the Lives on Infants, Toddlers, and Preschoolers. A Kaiser Family Foundation Report, Fall 2003
- <sup>245</sup> Klesges RC, Shelton ML, Klesges LM. Effects of television on metabolic rate: potential implications for childhood obesity. *Pediatrics*. 1993 Feb;91(2):281-6

- 
- <sup>246</sup> Borzekowski DL, Robinson TN. The 30-second effect: an experiment revealing the impact of television commercials on food preferences of preschoolers. *J Am Diet Assoc.* 2001 Jan;101(1):42-6
- <sup>247</sup> Kotz K, Story M. Food advertisements during children's Saturday morning television programming: Are they consistent with dietary recommendations? *JADA* 94(1994)11
- <sup>248</sup> Coon KA, Tucker KL. Television and children's consumption patterns. A review of the literature. *Minerva Pediatrics.* 2002; 54(5) 423-36
- <sup>249</sup> Taras H, Sallis J, Patterson T, Nader P, Nelson J. Television's Influence on Children's Diet and Physical Activity. *Journal of Developmental and Behavioral Pediatrics*, 10(1989) 176-80
- <sup>250</sup> Vandewater EA, Shim MS, Caplovitz AG. *J Adolesc* Feb 27(1) 2004
- <sup>251</sup> Robinson TN, *Pediatr Clin North Am.* Aug;48(4)2001
- <sup>252</sup> Andersen RE, Crespo CJ, Bartlett SJ et al., *JAMA* Mar 25,1998
- <sup>253</sup> Dietz WH Jr, Gortmaker SL. Do we fatten our children at the television set? Obesity and television viewing in children and adolescents. *Pediatrics.* 1985; 75(5) 807-12
- <sup>254</sup> Gortmaker SL, Must A, Sobol AM, Peterson K, Colditz GA, Dietz WH. Television viewing as a cause of increasing obesity among children in the United States, 1986-1990. *Arch Pediatr Adolesc Med.* 1996 Apr;150(4):356-62
- <sup>255</sup> Dennison BA, Erb TA, Jenkins PL. Television viewing and television in bedroom associated with overweight risk among low-income preschool children. *Pediatrics.* 2002 Jun;109(6):1028-35
- <sup>256</sup> Robinson TN. Reducing children's television viewing to prevent obesity: a randomized controlled trial. *JAMA.* 1999 Oct 27;282(16):1561-7
- <sup>257</sup> Kline, Stephen. "Media Consumption as a Health and Safety Risk Factor." North Vancouver Media Risk Reduction Intervention. Simon Fraser University, Media Analysis Lab. 2003
- <sup>258</sup> American Academy of Pediatrics, "Children, Adolescents, and Television," *Pediatrics*, Vol. 107 No. 2, Feb. 2001
- <sup>259</sup> Woodard EH. Media in the Home: The Fifth Annual Survey of Parents and Children. The Annenberg Public Policy Center. 2000.
- <sup>260</sup> 2004, National Center on Public Education and Prevention, Rock Island, IL, Robert D. Felner, "2003-2004 Student Reports of Computer Use and TV Viewing by Grade Level
- <sup>261</sup> Certain LK, Kahn RS. Prevalence, correlates, and trajectory of television viewing among infants and toddlers. *Pediatrics.* 2002 Apr;109(4):634-42
- <sup>262</sup> SALT Survey 2004-2005, Department of Education, State of Rhode Island



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- <sup>263</sup> Nielsen Media Research, 2000 Report on Television: The First 50 Years. 2000, AC Nielsen Co: New York
- <sup>264</sup> Washington State Nutrition and Physical Activity: Policy Resource Guide. 2005
- <sup>265</sup> Americans with Disabilities Act. Available at: <http://www.usdoj.gov/crt/ada/>
- <sup>266</sup> The Learning Connection. The Value of Improving Nutrition and Physical Activity in Our Schools. Action for Healthy Kids. 2004. Available at: <http://www.ActionforHealthyKids.org>
- <sup>267</sup> Working Families and Growing Kids: Caring for Children and Adolescents. 2003 Board on Children, Youth and Families Institute of Medicine Available at <http://darwin.nap.edu/books/0309087031/html/1.html>
- <sup>268</sup> Story M, Kaphingst KM, French S. The role of child care settings in obesity prevention. Childhood Obesity. The Future of Children 2006; 16(1)
- <sup>269</sup> National Center for Health Statistics. Health, United States, 1990. Hyattsville, MD: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Center for Health Statistics, 1991
- <sup>270</sup> RI Department of Health. Disparities in Health Insurance Coverage among Adults in Rhode Island. <http://www.health.ri.gov/publications/hpb0201.pdf> Accessed 7/25/06)
- <sup>271</sup> Wilson M, Hollman P, Hammock A. A comprehensive review of the effects of worksite health promotion on health-related outcomes. American Journal of Health Promotion. 1996; 11: 429-35
- <sup>272</sup> Vainio H, Bianchini F. IARC handbooks of cancer prevention. Volume 6: Weight control and physical activity. Lyon, France: IARC Press, 2002.